FIRST FIVE-YEAR REVIEW REPORT FOR CHEVRON QUESTA MINE SUPERFUND SITE TAOS COUNTY, NEW MEXICO

June 2017

Prepared by

U.S. Environmental Protection Agency
Region 6
Dallas, Texas

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FIRST FIVE-YEAR REVIEW REPORT FOR
CHEVRON QUESTA MINE SUPERFUND SITE
EPA ID#: NMD002899094
TAOS COUNTY, NEW MEXICO

This memorandum documents the U.S. Environmental Protection Agency's performance, determinations, and approval of the Chevron Questa Mine Superfund Site (Site) first five-year review under Section 121(c) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S. Code Section 9621(c), as provided in the attached first Five-Year Review Report.

Summary of the First Five-Year Review Report

The first Five-Year Review reviews the Remedial Action work completed as Removal Actions under Administrative Settlement Agreement and Order on Consent for Removal Actions (AOC) filed March 8, 2012, and AOC Appendix A - Statement of Work (SOW). The removal action work was completed on four distinct areas of the Site and represents only a portion of the Site cleanup work to be completed.The remaining work will be implemented under future agreements.

The removal actions consisted of:

- Removal of polychlorinated biphenyl (PCB)-contaminated soil in the Mill Area and off-Site treatment/disposal of the excavated soil;
- Removal of tailing spill deposits along the Red River and Riparian Areas, including the large tailing pile at the Lower Dump Sump and on-Site disposal of the excavated material at the Tailing Facility Area;
- Piping of unused irrigation water in the Eastern Diversion Channel to prevent its infiltration through historic buried tailing in the Tailing Facility Area: and
- Installation of inlet storm water controls at Eagle Rock Lake, removal of Eagle Rock Lake sediment, and on-Site disposal of the excavated material.

The removal action work was described in the EPA's Record of Decision (ROD) finalized on December 20, 2010. The ROD provides a full description of Site contamination, risk assessment, remedial alternatives, and the selected remedy for entire Site.

Environmental Indicators

Human Exposure Status: Human Exposure Under Control
Contaminated Groundwater Status: Not Under Control
Site-Wide Ready for Reuse: Site Not Site-Wide Ready for Reuse

Determination

I have determined that the remedy at the Chevron Questa Mine Superfund Site is expected to be protective of human health and the environment upon completion. In the interim, remedial activities completed to date have adequately addressed all exposure pathways that could result in unacceptable risks in these areas.

Pam Phillips, Acting
Carl E. Edlund, P.E.
Director, Superfund Division
U.S. Environmental Protection Agency Region 6

6/28/17
Date

CONCURRENCES

FIRST FIVE-YEAR REVIEW REPORT FOR
CHEVRON QUESTA MINE SUPERFUND SITE
EPA ID#: NMD002899094
TAOS COUNTY, NEW MEXICO

Laura Stankosky
Remedial Project Manager

5/12/2017
Date

Blake Atkins
Chief, Louisiana/New Mexico/Oklahoma Section

5/30/17
Date

John C. Meyer
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Date

Elizabeth Pletan
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6-8-17
Date

Mark A. Peycke
Chief, Superfund Branch, Office of Regional Counsel

06/12/17
Date

Pamela Phillips
Deputy Director, Superfund Division

6/28/17
Date

ISSUES/RECOMMENDATIONS

**[FIRST FIVE-YEAR REVIEW REPORT FOR
CHEVRON QUESTA MINE SUPERFUND SITE
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TAOS COUNTY, NEW MEXICO**

There were no issues identified in this Five-Year Review Report.

Table of Contents

List of Figures – Appendix C

List of Tables – Appendix D

LIST OF ABBREVIATIONS & ACRONYMS

AOC	Administrative Settlement Agreement and Order on Consent
ARAR	Applicable or Relevant and Appropriate Requirement
BERA	Baseline Ecological Risk Assessment
BMPs	Best Management Practices
CD	Consent Decree
CEMC	Chevron Environmental Management Company
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CIC	Community Involvement Coordinator
CSM	Conceptual Site Model
COC	Contaminant of Concern
CMI	Chevron Mining Incorporated
EE/CA	Engineering Evaluation/ Cost Analysis
EPA	United States Environmental Protection Agency
EMNRD	New Mexico Energy, Minerals and Natural Resources Department
FYR	Five-Year Review
gpm	Gallons per minute
HHRA	Human Health Risk Assessment
ICs	Institutional Controls
mg/kg	Milligrams/kilogram
MMD	Mining and Minerals Division of the New Mexico Energy, Minerals and Natural Resources Department
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NMED	New Mexico Environment Department
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
O&M	Operation and Maintenance
PCB	Polychlorinated biphenyl
PRG	Preliminary remediation goal
PRP	Potentially Responsible Party
RAO	Remedial Action Objectives
RCP	Reinforced Concrete Pipe
RD/RA	Remedial Design/Remedial Action
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
SOW	Statement of Work
TBC	To be considered
TSCA	Toxic Substances Control Act
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
yd^3	Cubic yards

I. INTRODUCTION

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy is and will continue to be protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in five-year review reports such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The U.S. Environmental Protection Agency (EPA) is preparing this five-year review pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121, consistent with the National Contingency Plan (NCP)(40 CFR Section 300.430(f)(4)(ii)), and considering EPA policy.

This is the first FYR for the Chevron Questa Mine Superfund Site. The triggering action for this statutory review is the on-site construction start date of removal of polychlorinated biphenyl (PCB)-contaminated soil in the Mill Area and off-Site treatment/disposal of the excavated soil. The FYR has been prepared due to the fact that hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

The Site consists of one Operable Unit (OU). The four areas of the Site or portions of Site areas where Remedial Action (RA) project work was completed under the Removal Action AOC, filed March 8, 2012, will be addressed in this FYR.

The Chevron Questa Mine Superfund Site FYR was led by Laura Stankosky, EPA Remedial Project Manager (RPM). Participants included: Jon Rauscher, EPA Risk Assessor; Joseph Fox, Joseph Marcoline, and Anne Maurer with the New Mexico Environment Department (NMED); Holland Shepard, Michael Coleman, and Davena Crosley with Mining and Minerals Division (MMD) of the New Mexico Energy, Minerals and Natural Resources Department; Jack Lewis and Greg Miller with the United States Forest Service (USFS); and Erin Koch and Cindy Gulde with Chevron Environmental Management Company (CEMC), representing Chevron Mining Incorporated (CMI). CMI, the potentially responsible party (PRP) was notified of the initiation of the FYR and participated in the Site inspection. The review began on 10/28/2016.

Site Background

The Site consists of a closed underground molybdenum mine, milling facility, and tailing disposal impoundments (tailing facility) owned by CMI. The Site is located near the Village of Questa, Taos County, New Mexico. The mine and mill cover approximately 3 square miles of land and are located north of State Highway 38, in the Taos Range of the Sangre de Cristo Mountains. The mine site is surrounded by the Carson National Forest and is entirely within the Red River Watershed. The Site also includes former tailing disposal impoundments covering approximately two square miles of land, also owned by CMI and located west of the Village of Questa. A 9 mile tailing pipeline runs from the mill site to the tailing facility predominantly along Highway 38 and the Red River. The Red River, a tributary of the Rio Grande, approximately parallels the southern boundary of the mine site and tailing facility. A popular multiple-use watershed, the Red River is designated a cold water fishery and is home to a state fish hatchery, located one mile downstream of the tailing facility. The river provides water for irrigation and livestock watering, recreation, and serves as wildlife habitat. The river is also the source of water for small lakes upstream and downstream of the mine site, including Eagle Rock Lake, a popular fishing spot for the local community. The Red River and the Rio Grande, in the vicinity of their confluence, were designated a Wild and Scenic River by Congress in 1983.

The Molybdenum Corporation of America (Molycorp) began mining the Site in 1919. Underground mining operations were conducted until 1958 and resumed in 1981. The mine closed permanently in June 2014. Open pit mining, conducted between 1965 and 1983, resulted in the excavation of over 328 million tons of acid generating and potentially acid generating waste rock. The waste rock was placed around the open pit into nine large rock piles. The extraction of molybdenum from ore, through milling and concentrating operations, produced tailing (a solid waste byproduct), which was transported as slurry through the pipeline to the tailing impoundments. Well

over 100 million tons of fine grained tailing were deposited at the tailing facility since its construction in 1966. Constant breakage of the tailing pipeline, from 1966 to 1991, resulted in numerous spills of tailing into the Red River and/or along its floodplain, as well as into a local *acequia* (irrigation ditch).

Other actual and potential releases include (1) waste water discharges exceeding NPDES permit limits at the Outfall 002, (2) uncontrolled surface-water runoff, (3) acid rock drainage (ARD) from waste rock to ground water and, subsequently, to surface water at zones of ground-water upwelling (i.e., seeps and springs), and (4) seepage from the tailing impoundments to ground water, as well as surface water via seeps and springs. Soil contamination has occurred at both the mine site and tailing facility areas. Operations in the mill area contaminated soil primarily with polychlorinated biphenyls (PCBs) and molybdenum. Surface soil in the valley south of the tailing facility has been contaminated with molybdenum by uncontrolled runoff directly from the tailing facility, uncontrolled waste water discharges from the tailing facility, and contaminated shallow ground water upwelling near ground surface. Eagle Rock Lake is located a mile west of the mine site, adjacent to the Red River. Bottom sediments of the lake were contaminated with several heavy metals, including aluminum, cadmium, copper, manganese, nickel, and zinc. These metals were transported into the lake with sediment and surface water of the Red River primarily during storm events.

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: Chevron Questa Mine Superfund Site		
EPA ID: NMD002899094		
Region: 6	**State:** NM	**City/County:** Taos County
SITE STATUS		
NPL Status: Final		
Multiple OUs? No	**Has the site achieved construction completion?** No	
REVIEW STATUS		
Lead agency: EPA ***[If "Other Federal Agency", enter Agency name]*:**		
Author name (Federal or State Project Manager): Laura Stankosky		
Author affiliation: USEPA Region 6		
Review period: 11/3/2016 - 7/9/2017		
Date of site inspection: 11/29/2016		
Type of review: Statutory		
Review number: 1		
Triggering action date: 7/9/2012		
Due date *(five years after triggering action date)*: 7/9/2017		

II. RESPONSE ACTION SUMMARY

Basis for Taking Action

Based on an Expanded Site Investigation (ESI) conducted in the mid-1990s by NMED, it was concluded that the mine waste rock and tailing ponds contain hazardous substances, and that releases of these substances to ground water and surface water at the Site had occurred. An EPA hydrological study completed in 1998 found a probable hydraulic connection between the tailing ponds and the Red River, as well as between the mine waste rock, natural weathering features (known as hydrothermal scars), and seepage discharges to the Red River.

Remedial Investigation/Feasibility Study

Molycorp Inc. (now CMI) conducted a Remedial Investigation/Feasibility Study (RI/FS) at the Site, pursuant to an Administrative Order on Consent for RI/FS, dated September 2001. EPA conducted a baseline human health risk assessment and baseline ecological risk assessment for the Site concurrently with CMI's RI/FS. Environmental media were sampled from August 2002 through 2004, as a part of the RI/FS, including soil, sediment, surface water, ground water and air. Terrestrial biota and aquatic biota were also sampled for the risk assessment. The RI and FS reports were completed in 2009, as were the EPA's Human Health Risk Assessment (HHRA) and Baseline Ecological Risk Assessment (BERA).

Based on the findings of the HHRA and BERA, EPA determined that there is Site-wide risk to human health and the environment due to the release of the following contaminants of concern (COCs): polychlorinated biphenyls (PCBs), aluminum, beryllium, cadmium, copper, manganese, molybdenum, nickel, zinc, acidity, and other contaminants at the Site. The Removal Action addressed COCs and their risks for the following areas: PCBs at the Mill area that present a risk to future commercial/industrial workers [risk to workers at the mine site when it was operational were not considered in the HHRA since they were covered under Mine Safety Health Administration (MSHA) regulations (for an operating mine)]; molybdenum in tailing spills that presents an ecological risk to birds along the Red River and Riparian Areas, including the large tailing pile at the Lower Dump Sump; molybdenum in ground water that presents a human health risk from the historic buried tailing in the Eastern Diversion Channel; and aluminum (with consideration of floc formation), cadmium, copper, manganese, nickel, and zinc that present an ecological risk to benthic macroinvertebrates in Eagle Rock Lake sediment.

Response Actions

Previous Removal Actions

The Upper Dump Sump is an unlined, earthen, bowl-shaped depression used as an emergency basin for operational and maintenance purposes of the tailing pipeline. In 2002 and early 2003, Molycorp removed tailing from an area near the Upper Dump Sump, under the direction and oversight of NMED. Approximately 8,650 cubic yards were removed and disposed at the tailing facility.

In 2004, Molycorp removed two underground storage tanks (USTs) containing gasoline and used oil and 53 old aboveground storage tanks (ASTs), along with visibly stained soil associated with past spills at the mine site under the direction and oversight of NMED. All petroleum-contaminated soil was shipped off-site for disposal at a permitted facility in Colorado. The tanks were cleaned, then transported (either intact or cut into sections) to a recycling facility in Colorado. The diesel oil spill from one AST contaminated soil to a depth of 60 feet, but did not significantly affect ground water. Monitoring of the ground water continues.

Water Management

Since 1975, Molycorp (and now CMI) has operated a seepage interception system at the tailing facility that consists of shallow rock-filled trenches and seepage barrier drains, as well as ground water extraction wells. Most of this contaminated water (335 gallons per minute (gpm) is discharged to the Red River via Outfall 002, pursuant to CMI's National Pollutant Discharge Elimination System (NPDES) permit, while the remainder (85 gpm) is

pumped back to the tailing impoundments to reduce the manganese load discharged through Outfall 002. This recirculation of the contaminated water is to comply with the NPDES permit discharge limit for manganese. CMI has also operated ground water collection systems along the southern boundary of the mine site since 2002, as part of the NPDES permit Best Management Practices (BMPs). These systems include ground water withdrawal wells located between several waste rock piles and the Red River to collect acid rock drainage-impacted ground water. They also include seepage interception systems (French drains) along the northern bank of the river, to collect acid rock drainage-impacted ground water discharging into the river at seeps and springs, including Spring 13 and Spring 39 (see Section IV and VI).

Previous Reclamation Activities

Molycorp conducted interim reclamation at two waste rock piles, to address instability concerns under the direction and oversight of MMD and NMED: the Goathill North Waste Rock Pile in 2004/2005 and the Sugar Shack West Waste Rock Pile in 2008.

Record of Decision

EPA's Record of Decision (ROD) was finalized on December 20, 2010, and provides a full description of Site contamination, risk assessment, remedial alternatives, and the selected remedy.

The Site has been divided into the following five areas for cleanup, although the Site is being addressed as one site-wide operable unit:

- Mill Area;
- Mine Site Area (not included in the Removal Action AOC, filed March 8, 2012);
- Tailing Facility Area;
- Red River and Riparian Area; and
- Eagle Rock Lake.

Mill Area

The remedial action objective for the Mill Area is:

- Protect humans by preventing direct contact or ingestion of Mill Area soil that has a concentration of molybdenum or PCBs greater than federal applicable or relevant and appropriate requirements (ARARs) and/or Site specific health-based cleanup levels for soil.

For the protection of human health, the components of the Selected Remedy for the Mill Area are:

- Soil removal [High concentrations of PCBs greater than 25 milligrams per kilogram (mg/kg)] (Low occupancy – Commercial/Industrial);
- Off-Site treatment and disposal;
- Regrade;
- Apply cover material; and
- Apply amendments, and vegetate after Mill decommissioning.

Mine Site Area (not included in the Removal Action AOC, filed March 8, 2012)

The remedial action objectives for the Mine Site Area are:

- Prevent ingestion by humans of ground water containing mine-related inorganic COCs exceeding state/federal ARARs or Site-specific risk-based cleanup levels.
- Eliminate or reduce, to the maximum extent practicable, leaching and migration of inorganic COCs and acidity from waste rock (acid rock drainage) to ground water at concentrations and quantities that have the potential to cause exceedances of the numeric ground water ARARs or Site-specific risk-based cleanup levels.
- Restore contaminated ground water to meet state/federal ARARs or Site-specific risk-based cleanup levels for inorganic COCs.

- Eliminate or reduce, to the maximum extent practicable, the migration of mine related inorganic COCs in ground water to Red River surface water at concentrations that would result in surface water concentrations exceeding surface water ARARs or Site-specific risk-based cleanup levels.
- Protect Red River aquatic species from chronic exposure to inorganic COCs and acidity at Springs 13 and 39 by eliminating or reducing discharge, to the maximum extent practicable, of Springs 13 and 39 water to the Red River at levels that result in total aluminum concentrations below the Site-specific risk-based cleanup level of 1 mg/L in Red River surface water at Spring 13 and 0.8 mg/L in Red River surface water at Spring 39.
- Prevent future transport of mine site soil containing inorganic COCs to surface water entering the Red River to prevent future adverse impacts to habitat, physical toxicity, and exceedances of surface water quality ARARs.
- Protect recreational visitor/trespasser by reducing exposure (incidental ingestion) of surface water containing beryllium, cadmium, and manganese exceeding federal drinking water standards or Site-specific risk-based cleanup levels.
- Eliminate or reduce direct exposure and exposure via the food web, to mine site soil that contains molybdenum at concentrations that exceed the Site-specific risk-based cleanup level of 300 mg/kg for terrestrial ecological receptors.
- Maintain underground mine water elevations below those of the Red River, prevent ingestion by humans, and treat ground water from the underground mine workings containing mine-related inorganic COCs exceeding state/federal ARARs or Site specific risk-based cleanup levels.

For the protection of human health and the environment, the components of the Selected Remedy for the Mine Site Area are:

- Source containment by regrading and re-contouring waste rock piles to achieve a minimum interbench slope of 3Horizontal:1Vertical (3H:1V) or 2H:1V, including partial to complete removal of waste rock to accommodate slope requirements;
- Apply a store and release/evapo-transpiration cover system;
- Amendment application and revegetation;
- Surface water (seepage) interception;
- Underground Mine dewatering; and
- Ground water extraction and water treatment.

Red River and Riparian, South of Tailing Facility Area (partially addressed in the Removal Action AOC, filed March 8, 2012)

The remedial action objectives for the Red River, riparian, and south of tailing facility area are:

- Eliminate or reduce direct exposure and exposure via accumulation in plants to mining-affected soil and tailing spills that contain molybdenum at concentrations exceeding the Site-specific risk-based cleanup levels of 54 mg/kg for the protection of birds and other terrestrial wildlife not including grazing mammals protected by the 41 mg/kg level, 41 mg/kg for protection of wildlife (deer and elk) and 11 mg/kg for the protection of livestock (cattle and sheep).
- Eliminate or reduce direct exposure of fish to Red River surface water along the mine site and tailing facility that exceeds surface water ARARs or Site-specific risk-based cleanup levels for aluminum (direct toxicity).

For protection of wildlife and livestock in the area south of the tailing facility and wildlife in the Red River riparian corridor, the component of the Selected Remedy for the Red River and Riparian and South of Tailing Facility Area is:

- Removal of soil and tailing spill deposits and on-Site disposal.

Tailing Facility Area (partially addressed in the Removal Action AOC, filed March 8, 2012)

The remedial action objectives for the Tailing Facility Area are:

- Eliminate or reduce ingestion by humans of ground water drawn from private wells containing mine-related inorganic COCs exceeding state/federal ARARs or Site specific risk-based cleanup levels.
- Restore contaminated ground water at and off-site of the tailing facility to meet state/federal ARARs or Site-specific risk-based cleanup levels for inorganic COCs.
- Eliminate or reduce, to the maximum extent practicable, the seeping and migration of inorganic COCs from tailing to ground water at concentrations and quantities that have the potential to cause exceedances of the numeric ground water ARARs or Site-specific risk-based cleanup levels for ground water.
- Protect recreational visitor/trespasser or future commercial use scenario by reducing or eliminating exposure (dermal contact/investigation) to tailing in the ponded area that contains molybdenum at concentrations exceeding Site-specific health-based cleanup levels.
- Protect aquatic and aquatic-dependent life by reducing or eliminating exposure to tailing in the ponded areas that contains metals at concentrations exceeding Site specific risk-based cleanup levels.
- Eliminate or reduce direct exposure and exposure via accumulation in plants to tailing that contain molybdenum at concentrations exceeding the Site-specific risk based cleanup level for protection of wildlife (41 mg/kg for protection of deer and elk; 54 mg/kg for protection of birds and other terrestrial wildlife not including grazing mammals protected by the 41 mg/kg level).

For the protection of human health and the environment, the components of the Selected Remedy for the Tailing Facility Area are:

- Source containment by regrade;
- Cover and revegetation of Tailing Impoundments;
- Upgrade seepage collection;
- Piping of Irrigation Water in Eastern Diversion Channel (*addressed in the Removal Action AOC*);
- Continue ground water extraction with additional extraction southeast of Dam No. 1(MW-4 and MW-17 Area); and
- Water Treatment.

Eagle Rock Lake

The remedial action objectives for Eagle Rock Lake are:

- Eliminate or reduce direct exposure of benthic macroinvertebrates to mine site affected sediment in Eagle Rock Lake that exceeds preliminary Site-specific risk based cleanup levels for aluminum (with consideration of floc formation), cadmium, copper, manganese, nickel, and zinc.
- Eliminate or reduce the deposition of mine site-affected sediment in Eagle Rock Lake that exceeds preliminary Site-specific risk-based cleanup levels for the Red River sediment COCs (nickel and zinc) for benthic macroinvertebrates.

For protection of the environment, the components of the Selected Remedy for Eagle Rock Lake are:

- Inlet storm water controls; and
- Dredge sediment and on-Site disposal.

This first Five-Year Review reviews the Remedial Action (RA) work completed as removal actions under the Administrative Settlement Agreement and Order on Consent for Removal Actions (AOC) filed March 8, 2012, and AOC Appendix A - Statement of Work (SOW). The removal action work was completed on four distinct areas of the Site and represents only a portion of the Site cleanup work to be completed. This work is further described in the Status of Implementation section.

Status of Implementation

EPA, the State of New Mexico (State) and CMI entered into negotiations for CMI to conduct early actions at the Site. On March 7, 2012, EPA and CMI reached an agreement (Administrative Order on Consent or AOC) for

CMI to perform removal actions at the Site beginning in 2012. The removal actions consist of (1) removal of PCB-contaminated soil at the Mill area with off-Site treatment/disposal, (2) removal of historic tailing spill deposits along the Red River riparian corridor, (3) the piping of unused irrigation water within the Eastern Diversion Channel adjacent to the tailing facility; and (4) removal of contaminated sediment at Eagle Rock Lake and installation of a storm-water control structure for the lake inlet.

The following components in four of the five areas from the EPA ROD (see Appendix C, Figure 1 Removal Action Locations) have been addressed and are being included in this FYR:

Mill Area

- The major components of the removal action in the Mill Area performed by CMI related to PCB-contaminated soil removal and off-Site treatment/disposal at the Mill Area were:
    - Excavate soil contaminated by polychlorinated biphenyls (PCBs) in concentrations above the Toxic Substances Control Act (TSCA) cleanup level of 25 mg/kg for low occupancy (commercial/industrial) use.
    - Perform confirmation sampling.
    - Import clean fill and grade.
    - Transport PCB soil to EPA-approved off-Site facilities for treatment and/or disposal.
    - The remedy selected in the ROD also requires application of soil amendments and re-vegetation as part of Mill Decommissioning required by the state. Mill decommissioning work is on-going.
    - Institutional Controls (ICs).

Red River and Riparian Area

- The major components of the removal action for tailing spill deposits along the Red River riparian corridor, including the large tailing pile at the Lower Dump Sump, performed by CMI were:
    - Excavate historic tailing spill deposits along the Red River riparian corridor to a visual standard plus a negotiated amount of over-excavation, including the large tailing pile at the Lower Dump Sump.
    - Transport and dispose excavated tailing deposits into tailing facility impoundment.
    - Backfill excavations with alluvial soil.

Tailing Facility Area

- The historic buried tailing is located along the east side of the tailing facility. The major component of the removal action for the Tailing Facility Area related to the piping of unused irrigation water in the Eastern Diversion Channel performed by CMI was:
    - Construct piping in Eastern Diversion Channel to convey unused irrigation water past the historic buried tailing and discharge near Dam No. 1.

Eagle Rock Lake

- The major components of the removal action for Eagle Rock Lake performed by CMI were:
    - Install inlet controls to reduce storm event sediment loading from the river to the lake.
    - Remove sediment from the lake to the greatest extent practicable based on the technology selected for sediment removal.
    - Transport and dispose excavated sediment at an appropriate on-Site facility.

IC Summary Table

Summary of Implemented Institutional Controls (ICs)

Media, engineered controls, and areas that do not support UU/UE based on current conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date
There are separate restrictive covenants for the tailing facility and the Mine and mineral processing facility (Mill Area).	Yes	Yes	Site	Government controls would be used to restrict access to contaminated ground water. Proprietary controls that have been recorded by CMI are intended to legally restrict land and resource use at the Site to minimize the potential for human exposure.	Restrictive covenants, dated May 21, 2009, recorded in the Taos County deed records run with the land.

Implementation

Mill Area

The first removal action to take place was the removal of PCB-contaminated soil at the Mill area with off-Site treatment/disposal. RA construction activities at the Mill Area were initiated on July 9, 2012.

Contaminated soils, containing PCBs greater than or equal to the cleanup level of 25 mg/kg, were excavated between July 16 and October 15, 2012. Horizontal excavation continued until either PCB concentrations (as confirmed through sampling) were less than the cleanup level or the excavation could no longer continue, based on the presence of structures such as buildings or supports for the ore conveyor. Four small areas could not be excavated below cleanup levels, due to the presence of building foundations, and required visual marker placement consisting of orange snow fencing. The areas were located: at the northeast corner of the Pump House associated with Thickener 175, two separate locations on the west side of the Lead Leach Plant, and in an area on the west side of the Reagent Building (see Appendix C, Figure 2).

Excavated material consisted of impacted soil and other debris such as concrete, transite (regulated asbestos-containing material) material, old pipes (e.g., metal, polyvinyl chloride, rubber), scrap metal, and general trash. Excavated material was segregated and temporarily staged in stockpiles within the exclusion zone. One stockpile contained material for landfill disposal (material with PCBs < 50 milligrams/kilogram (mg/kg) and the other stockpile contained material for incineration (material with PCBs ≥ 50 mg/kg). Stockpiled material was either placed into lined roll-offs or haul trucks before being shipped offsite to an EPA-approved disposal facility for either landfill or incineration. Transite material that was encountered during excavation was first wetted down and then double bagged in plastic before it was loaded for disposal at the landfill.

Approximately 760 tons of excavated material were incinerated at the Clean Harbors facilities in Deer Park, Texas and Aragonite, Utah, and approximately 3,010 tons of excavated material was landfilled at the Clean Harbors facility in Deer Trail, Colorado. The post-construction inspection for the PCB-contaminated soil removal took place on October 17, 2012, and was attended by representatives from CMI, EPA, NMED, and CMI contractors. Only minor "housekeeping" issues were identified. The identified items were addressed and completed by October 23, 2012. An additional inspection was not required.

Permit Revision 96-2 to Permit No. TA001RE, issued by the Director of the MMD of the New Mexico Energy, Minerals and Natural Resources Department, requires reclamation of former mine buildings. The Pump House associated with Thickener 175 was removed per the MMD permit. RA activities at the Pump House were initiated on November 3, 2014 and soil contaminated above clean up levels was removed as part of this action. The approximate area exceeding the cleanup level for total PCBs was 84 square feet on the northeast corner of the Pump House, resulting in a total of approximately 12 tons of excavated material and 9 cubic yards (cy). The post-construction inspection for the Pump House reclamation and the PCB-contaminated soil removal took place on

November 12, 2014; no issues were identified (see Appendix C, Figure 3). Contaminated soil remaining in three areas at the base of the Lead Leach Plant and at the Reagent Building that is marked with an orange visual marker must be removed when the buildings are removed, per the MMD Permit Revision 96-2 to Permit No. TA001RE.

Red River and Riparian Area

RA construction activities at the large tailing pile at the Lower Dump Sump were initiated on February 11, 2013. RA construction activities to address the historic tailing spill deposits along the Red River riparian area were initiated on October 1, 2013.

Tailing was excavated at the large tailing pile at the Lower Dump Sump between February 27 and August 12, 2013. Tailing was excavated to address the historic tailing spill deposits along the Red River Riparian Area between October 8, 2013 and August 18, 2014. Due to winter weather conditions, excavation was suspended from December 17, 2013 to April 4, 2014.

Horizontal and vertical excavation continued until either visual inspection indicated that the tailing had been removed or the excavation could no longer continue based on the presence of utilities, trees, SH 38 embankments, road berms, or the active tailing delivery pipeline. Some tailing material was left in place at 21 locations. Tailings and tailing spills were left in place due to colocation with, adjacent to or beneath the tailing delivery pipeline and pipeline supports; due to colocation with, adjacent to or beneath the Upper Dump Sump; due to colocation with, adjacent to or beneath the Lower Dump Sump; and within bedding for Mine roads along the Red River Riparian Area. These tailing spills must be cleaned up when these structures are addressed, per Permit Revision 96-1 to Permit No. TA001RE.

Approximately 31,000 cy of material were excavated during this project. Excavated material consisted of tailing, soil, and other debris such as concrete, old pipes (e.g., metal and polyvinyl chloride), scrap metal, and general trash. Stockpiled debris was hauled to the tailing facility following completion of excavation activities. During the final inspection, additional excavation was requested for one area. The excavation was performed on July 21, 2014. During verification site visits on August 11, 2014, excavation was requested at five spill locations. Excavation was completed at these areas on August 18, 2014 (see Appendix C, Figure 4 for a broad overview of the areas where tailing spill removal work occurred).

Tailing Facility Area

RA construction activities at the Tailing Facility, related to the piping of unused irrigation water in the Eastern Diversion Channel, to prevent infiltration into historic buried tailing, were initiated on October 30, 2013. Due to the increasing and fluctuating alluvial water table in the region, the potential exists that groundwater may come into contact with the buried tailing material. Flood irrigation practices are used on the fields east of the Diversion Channel. The flood irrigation practices result in a large amount of the water entering the channel along an approximate 2,000-foot reach. It is believed that a plume of molybdenum originates beneath portions of the channel; the plume of molybdenum originates from the Dam No. 1 impoundment and/or is due to rising ground water saturating the buried tailing during periods when the water table is higher. The plume has migrated to the southeast.

The Eastern Diversion Channel was divided into five reaches for the purpose of pipeline construction. The diversion begins in the vicinity of the Cabresto Ditch #4 (denoted as Reach 1) and continues approximately 2,200 feet, as the alignment follows a southerly course around an existing corrugated metal pipe culvert where the tailing pipelines and road cross over the diversion channel. Downstream of the road, the Reach 2 alignment continues approximately 1,400 feet on a southerly course toward Reach 3 that follows a southwest trend for approximately 2,400 feet to the existing riprap-lined chute. Reach 4 begins at the top of an existing riprap-lined chute that runs approximately 1,000 feet downslope, where it outfalls onto the valley floor downstream of the Dam No. 1 abutment. At the bottom of Reach 4, Reach 5 conveys the irrigation water approximately 1,000 feet to enter four existing culverts immediately north of Embargo Road. Manholes were installed at points within piping for each reach to serve as entry points to the pipeline for maintenance.

Reach 1, approximately 2,532 feet, was constructed using 30-inch inside diameter reinforced concrete pipe (RCP). In general, the pipe was installed within the bottom of the channel, with a 2-foot minimum cover at a slope ranging from 0.1 percent to 1.9 percent. Reach 2, approximately 847 feet, was constructed using 30-inch inside diameter RCP. This section of the pipeline was installed using conventional open cut trenching techniques. Reach 3, approximately 2,503 feet, was constructed using 30-inch inside diameter RCP. This section of the pipeline was installed by first filling in the bottom 4 feet of the channel to create a wider work area. The pipe was then installed using conventional open cut trenching techniques.

Reach 4, approximately 984 feet, was constructed using 30-inch outside diameter high density polyethylene pipe, installed with a horizontal directional drill rig. This offered a safer installation method by positioning the directional drill rig at the lower end of the Reach and boring up the steep Reach 4 gradient at an approximate grade of 25 percent, thus avoiding placing equipment on steep slopes, as would be necessary for traditional open cut excavation. At the bottom of this Reach, an energy dissipation structure was installed to reduce the high velocity of the water being carried in the pipeline before being discharged to the Reach 5 piping. Reach 5, approximately 1,032 feet, was constructed using 30-inch ID RCP. In general, the pipe was installed below the west edge of the existing channel with as little as 2-foot minimum cover and at slopes ranging from 0.8 percent to 4.4 percent. This section of the pipeline was installed using conventional open cut trenching techniques. Two manholes were installed within this Reach. These manholes will serve as entry points to the pipeline for maintenance (see Appendix C, Figure 5).

Approximately 2.15 acres of wetlands were removed from Reach 1 to facilitate Eastern Diversion Channel construction. CMI is required to complete compensatory wetland mitigation (creation or restoration) associated with the destruction or modification of wetlands during the work. The removed wetlands will be mitigated under a separate effort at an off-site location; the evaluation for the off-site location is currently underway.

The post-construction inspection for the Eastern Diversion Channel pipeline construction took place on August 14, 2014. Identified items were addressed and completed by September 5, 2014.

Eagle Rock Lake

RA construction activities to address the Eagle Rock Lake cleanup started with the installation of three Parshall flumes: the Mill Yard Flume, the Goathill Gulch Flume, and the Lower Capulin Canyon Flume. The flumes are used to monitor mine site storm water runoff peak flow, duration, and total volume, and bucket samplers are used to collect storm water for chemical analysis if runoff is observed. The flumes provide information regarding potential contaminated flow that may impact Eagle Rock Lake. Construction of the flumes was completed between September 18, and 20, 2102.

RA construction activities for installation of the automated head gate controls, designed to control flow into Eagle Rock Lake, were initiated on October 29, 2012. Construction was completed and startup activities were conducted on January 7, 8, and 9, 2013. In March 2013, two permanent sondes were installed at the head gate and are used to monitor for turbidity, specific conductivity, temperature, and river depth. The head gate has operated since installation in 2013, except during the winter shutdown (from November 22, 2013 through February 13, 2014) and the sediment removal shutdown (December 29, 2014 through September 23, 2015). Head gate closures are triggered automatically during high-turbidity events, and the sondes are monitored for proper operation and functionality.

Stilling well RR-7 was installed on November 12 and 13, 2013. The purpose of stilling well RR-7 is to collect data from the upstream mine boundary, to monitor upstream impacts during storm events.

From November 10 through 12, 2014, fish were collected from Eagle Rock Lake using seines, boat electrofishing, and trap nets. USFS issued a Closure Order for ERL on December 15, 2014, which was made effective January 5, 2015. In addition, CEMC mailed informational brochures at the end of December 2014 to Village of Questa residents, describing the Eagle Rock Lake and Old Red River Road closures.

Eagle Rock Lake is located on USFS property. USFS representatives from the Questa Ranger Station and USFS Taos office provided coordination for USFS requirements. Site preparation activities began the week of January 19, 2015 and were generally performed until sediment excavation started on February 6, 2015. Phase I dewatering of Eagle Rock Lake was performed between January 30 and February 6, 2015. Dewatering of the lake occurred in two phases. During Phase I dewatering, surface water was continuously pumped and treated prior to discharge to the Red River. Approximately 1,400,000 gallons of water were treated and discharged to the river during this phase, and pumping was terminated when water removal became infeasible due to ice accumulation on the surface of the lake. Phase II dewatering was performed on March 24 and 25, 2015, after surficial ice overlaying lake sediment had melted and sediment removal approached areas with standing water within the lake. Approximately 350,000 gallons of water were treated and discharged to the river during this phase, and pumping was terminated when removal became infeasible due to limited water depth. Remaining water was allowed to drain from Eagle Rock Lake into the Red River through natural processes.

Sediment removal activities began at the eastern limit of Eagle Rock Lake on February 6, 2015 and proceeded to the west. Lake sediments were removed to the top of the underlying native alluvium surface and disposed of at the Tailing Facility. CMI contractor personnel conducted paint filter tests to verify that excavated sediment did not contain free liquids and was compliant with Title 40 of the Code of Federal Regulations, Sections 264.314 and 265.314. Once sediment removal was completed, the subgrade was prepared by grading and compacting the native alluvium to design specifications. The subgrade was compacted by wetting the surface to the optimal moisture content and compacting the soil with a roller. A geosynthetic clay liner was deployed through the use of a spreader bar lifted by a skid-steer loader, while the liner was unrolled by hand. The geosynthetic clay liner was secured in an anchor trench around the perimeter and deployed down the side slopes of Eagle Rock Lake. Once geosynthetic clay liner installation progressed west, two tracked low-ground pressure dump trucks were used to transport and place the sand cover. The sand was spread and graded to the design depth using a global positioning system on the low-ground-pressure dozer.

The lake was refilled starting August 12, 2015, following approval by the New Mexico Office of the State Engineer on August 11, 2017. A pre-final inspection was conducted on September 23, 2015. Identified items were addressed and completed by October 2015.

Restoration of the Eagle Rock Lake recreational area was coordinated with the Village of Questa. CMI supported Village of Questa participation in the design of the recreational area features. Revegetation, replacement, and upgrade of recreational features at the lake were performed in accordance with the Restoration Plan. Detailed site restoration activities incorporated USFS building requirements and specifications. Aggregate- and concrete-paved pathways were installed around Eagle Rock Lake, with two footbridges spanning the inlet and outfall. Other recreational features included a vault toilet, fishing piers, parking areas, bollards, picnic tables, and benches (see Appendix C, Figure 6).

Eagle Rock Lake was transferred back to USFS on September 30, 2015. The New Mexico Department of Game and Fish restocked the lake on October 1, 2015. USFS hosted a grand opening of the lake for community recreation on October 3, 2015.

Sediment removal included 0.55 acre of wetlands on the eastern end of the lake. CMI is required to complete compensatory wetland mitigation (creation or restoration), associated with the destruction or modification of wetlands during the work. The removed wetlands will be mitigated under a separate effort at an off-site location; the evaluation for the off-site location is currently underway.

Additional Site Work

Appendix H describes additional Site work taking place under the Early Design AOC, signed September 25, 2012, and to be conducted under a Partial Remedial Design/Remedial Action (RD/ RA) Consent Decree (Consent Decree), entered by the court on May 1, 2017.

Systems Operations/Operation & Maintenance

The removal of PCB-contaminated soil at the Mill area with off-Site treatment/disposal and the removal of historic tailing spill deposits along the Red River riparian corridor do not require operation and maintenance. The pipeline installed in the Eastern Diversion Channel in the Tailing Facility area does not have formal operation and maintenance (O&M) requirements, but CMI does perform biannual inspections. The Eagle Rock Lake RA work completed under the AOC requires O&M. The Post-Construction Inspection and Monitoring Plan for Eagle Rock Lake was completed on August 18, 2015, approved by EPA on November 12, 2015, and revised on November 20, 2015 to include clarification on the reporting timing and updated information after completion of benthic and chemical sampling conducted 1 month (September 2015) after completion of sediment removal construction.

Eagle Rock Lake

O&M includes evaluation of the Eagle Rock Lake head gate operation. The head gate inlet controls monitor and manage inflows into the lake. The primary objective of the inlet control system is to prevent inflow into Eagle Rock Lake during times of high suspended sediment loading in the Red River. The primary method of identifying a high suspended sediment concentration is by collecting and analyzing turbidity in the river; secondary data include electric conductivity and river stage. The river water parameters are monitored using two redundant sondes installed on the wing wall to the north of the head gate. The head gate closes automatically during high flow events, high electric conductivity, or high turbidity river readings to minimize sediment loading to the lake. The head gate is opened remotely by the head gate operator or manually once readings from the sondes confirm low turbidity levels.

III. PROGRESS SINCE THE LAST REVIEW

This is the first Five-Year Review.

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Involvement & Site Interviews

A notice was made available by inserting a post card notification in all US Post Office boxes in the Village of Questa, providing the postal carrier with post cards to deliver within the Village of Questa, mail out to the mailing list, and placing a stack of post cards at the village office. The post card notice invited the community to an informational community meeting, held on November 3, 2016, at the Questa VFW Hall, and invited the community to provide comment on the FYR. During the meeting, the agencies provided an update on current and future cleanup work at the Questa mine, followed by a question and answer session. A facilitator guided the meeting flow. Following the question and answer session, agency personnel were available to talk with the community. The results of the review and the report will be made available at the Site information repository located at Village of Questa, 2500 Old State Road 3, Questa, New Mexico 87556.

During the FYR process, interviews were conducted to document any perceived problems or successes with the remedy that has been implemented to date**.** A second community meeting was held on March 9, 2017. The notifications for the March 2017 community meeting, meeting location, meeting format and facilitation were done similarly to the November 2016 meeting. Interviews for both the FYR and the update of the Community Involvement Plan were conducted with community members prior to the meeting, and interview forms were also sent out by electronic mail. Interview forms were also sent via electronic mail to NMED, MMD, and CMI for completion. The results of these interviews are summarized below. Appendix E has copies of the interview forms, a summary of community concerns from the March 9, 2017 meeting, and completed interview forms for NMED, MMD, and CEMC/CMI.

Community members were generally happy with the RA work completed as removal actions under the AOC and had not noticed any incidents of vandalism. They spoke positively about the work completed at Eagle Rock Lake.

During community interviews, interviewees reported that the lake was considered a community asset and that it has frequent use, including the use of the walking paths for exercise. One community concern with the lake was noted; the lake water and Red River water were described as gray and there was concern that contamination in the Red River may be impacting or entering Eagle Rock Lake. An additional community concern involves the wetland area upstream of the Eastern Diversion Channel pipeline inlet at Reach 1. The Village of Questa wants all the wetlands cleared due to concerns with snakes and insects.

The New Mexico state regulatory agencies participated in the FYR interview process. Joseph Fox and Joseph Marcoline with NMED and Davena Crosley with MMD completed interview forms. All noted that the RA work completed as removal actions under the AOC was performed as required by the AOC and SOW and functioned as intended. All noted that the Village of Questa, Taos County, and community members have expressed concerns related to cleanup and decommissioning of the mine site and with the mine's NPDES permit, but that the concerns were not directly related to the removal action work evaluated in this FYR.

Mr. Fox noted that PCB-contaminated soil remained at the Mill Area at building footings; these areas would be addressed when the buildings were demolished. He also noted that tailing spills remained that would need to be addressed when mine infrastructure and tailings delivery pipeline were also decommissioned/demolished. Mr. Fox described that the project to pipe unused irrigation water in the Eastern Diversion Channel, to prevent infiltration into historic buried tailing, will be monitored over a five-year performance period. The project is intended to lower local ground water levels in the area, eliminate surface water flow from coming in contact with tailings, and lead to achievement of ground water cleanup levels and ARARs. He also noted concern with the potential for high concentrations of aluminum entering Eagle Rock Lake during Red River low flow conditions, due to issues with CMI's best management practices at eliminating flow from up-river springs, Spring 13 and Spring 39. Mr. Fox indicated that community members had noted gray water occurring periodically in the river and Eagle Rock Lake and were concerned that the lake sediments may be re-contaminated.

CMI participated in the FYR interview process. CMI Project Coordinator, Dr. Cynthia Gulde, completed an interview form. Dr. Gulde indicated that cleanup activities went well and the work was done in accordance with work plans. She indicated that maintenance associated with the lake and Eastern Diversion Channel is progressing smoothly as designed and approved by the EPA. She noted the lake is actively being used by the community with good feedback. Dr. Gulde noted that CMI has heard some concern over the levels of water in Eagle Rock Lake during winter months, but indicated that winter is during low flow of the river so lake levels appear to be as expected for that time of year.

EPA RPM, Ms. Stankosky, informed Dr. Gulde of the community concerns regarding the Eastern Diversion Channel wetlands and of gray water occurring periodically in the river and in Eagle Rock Lake. These wetlands were not damaged or removed during the removal action work as they were upstream of the first inlet location for the Eastern Diversion Channel. These wetlands are not associated with any required Site cleanup work and would require U.S. Army Corps of Engineer permitting coordination for removal. Dr. Gulde indicated that the Eastern Diversion Channel wetland area would be monitored during the bi-annual inspections for any increase in snakes or insects. Dr. Gulde discussed that CMI monitors the Red River through operation of stilling well RR-7 and the two permanent sondes installed at the Eagle Rock Lake head gate. Eagle Rock Lakes sediments are protected by closing the head gate during high turbidity events. She indicated that head gate closures are triggered automatically during high-turbidity events, and the sondes are monitored for proper operation and functionality. She indicated that CMI can also manually shut the head gate as needed to protect the lake. She indicated that CMI will continue to upgrade best management practices designed to eliminate flow from up-river springs, Spring 13 and Spring 39. She also indicated that the ground water extraction well system required by the May 1, 2017, Partial Consent Decree will provide additional protection by capturing impacted ground water in the Lower Sulphur Gulch colluvium before it enters the Red River alluvial aquifer.

Data Review

Mill Area

Soils, containing PCBs greater than or equal to the cleanup level, were excavated with horizontal excavation continuing, until either PCB concentrations (as confirmed through sampling) were less than the cleanup level or the excavation could no longer continue based on the presence of structures such as buildings or supports for the ore conveyor. Post excavation sampling data confirm that soils containing PCBs greater than the cleanup level of 25 mg/kg were removed from all areas except three (see Appendix A for references identifying Mill Area Removal Action Completion report for post excavation sampling). These areas are at the base of the Lead Leach Plant and at the Reagent Building and are marked with an orange visual marker. This remaining contamination must be removed when the buildings are removed, per the MMD Permit Revision 96-2 to Permit No. TA001RE.

Eagle Rock Lake

Analytical monitoring activities were completed at Eagle Rock Lake in 2015 in the form of benthic and chemical monitoring. Analytical monitoring was performed one-month post-construction, and will be performed in the future at 5 and 10 years post-construction. Therefore, the next analytical samples will be collected in 2020. Given the lack of time for any sediment or benthic macroinvertebrates to accumulate prior to the first sampling event, and the presence and proper operation of head gate controls, the intent of the first analytical monitoring was to represent the post-construction baseline condition of the benthic habitat layer. The analytical monitoring events conducted during the 2015 event were conducted within the sand layer located at the bottom of the lake. The results for the 2015 sampling event are included in tables in Appendix D. Included are water depth, water quality measurements, benthic macroinvertebrate community results, laboratory analytical results for the sand cover, and sediment grain size, moisture, and organic content results (see Appendix D, Tables 1 through 4).

To assess potential impacts to Eagle Rock Lake from various sources upstream of and potentially from the Site, storm water monitoring is conducted at an upstream monitoring point and at on-site drainages. Storm water monitoring is conducted at stilling well RR-7 and from storm water runoff collected through the three Parshall flumes. Due to freezing conditions and the removal of the sonde at RR-7 during winter months, turbidity readings at RR-7 were only measured from March 3 through October 11, 2016.

There were nine (9) head gate closure events from October 1 through December 31, 2015; which were either due to elevated turbidity and conductivity readings at one or both of the sondes, or due to a non-water quality issue (e.g., O&M activities, actuator faults, winter closure) (see Appendix D, Tables 5 and 6). Two storms generated turbidity levels in excess of the high turbidity alarm setting (see Appendix C, Figure 7). The elevated turbidity in the river from the storm events was due to sources other than the mine Site because there was no measurable storm water discharge from the flumes in the mine site drainages. Seven of the head gate closure events were due to O&M activities, actuator faults, or winter closure.

Tables 7 and 8 in Appendix D summarize the head gate closure events from January 1 through December 31, 2016, which were either due to elevated turbidity and conductivity readings at one or both of the sondes, or due to a non-water quality issue (e.g., operation and maintenance activities, actuator faults, winter closure). There were twelve (12) head gate closure events due to turbidity and conductivity readings. Nine (9) storms generated turbidity levels in excess of the high turbidity alarm (see Appendix C, Figure 8, Head Gate Turbidity Data for Storms 1 through 9, and Appendix D, Table 7) The elevated turbidity in the river from each of storm events was due to sources other than the mine site, because there was no measurable storm water discharge from the flumes in the mine site drainages. Three storm events generated conductivity levels in excess of the high conductivity alarm during December 2016 and during Red River low flow conditions (see Appendix D, Table 8, Storms 10 through 12).

Tables 7 and 8 in Appendix D show that the automated head gate controls responded as designed for storm events and closed the head gate accordingly. For two storm events in 2016 (Storm 3 and 11), the head gate responded as designed; however, on both occasions, the head gate failed to close completely due to woody debris under the head gate. Follow-up inspections confirmed that in both incidences the head gate was mostly closed with a small amount of water entering the channel. Debris was removed promptly. After turbidity and conductivity levels

attenuated below the high alarm, the head gate was reopened. CMI will install a grate to catch woody debris within the channel from the Red River and upstream of the head gate, by the end of September 2017, prior to the monsoon season.

Site Inspection

The inspection of the Site was started on 11/29/2016. The inspection was conducted over two days. In attendance were Laura Stankosky, EPA RPM and Jon Rauscher, EPA Risk Assessor, Lead agency. Support agency representatives included: Joseph Fox, Joseph Marcoline, and Anne Maurer with NMED; Holland Shepard, Michael Coleman, and Davena Crosley with MMD. Jack Lewis and Greg Miller with the USFS and Erin Koch and Cindy Gulde with CEMC representing CMI also participated. The purpose of the inspection was to assess the protectiveness of the remedy. Photographs of work areas were taken November 2, 2017, prior to the November 3, 2017 community meeting, due to concern that these areas would likely be snow covered on the date planned for the group Site inspection. Photographs taken November 2, 2017, photographs taken during the November 29 and 30, 2017 Site inspection, and the Site inspection checklist are included in the appendices (Appendix F, Site Inspection Checklist; and Appendix G, Site Inspection Photographs).

The first day (11/29/2016) of the Site inspection focused on historic tailing spill deposit removal along the Red River riparian area and at the Lower Dump Sump, Eagle Rock Lake and Mill area PCB-contaminated soil cleanup. Eagle Rock Lake and some of the areas where tailing spill were removed are located on USFS property. USFS representatives did not participate in the second day (11/30/2016) that focused on the Eastern Diversion Channel pipeline.

The inspection team meet in CMI's conference room prior to going on Site. Discussion during the first day of the inspection focused on the tailing delivery pipeline and development of a work plan to address pipeline decommissioning work and addressing tailing spills left in place due to colocation with, adjacent to or beneath the tailing delivery pipeline and pipeline supports. Discussion during the second day of the inspection focused on wetland mitigation work, required due to wetland areas destroyed with removal action work at the Eastern Diversion Channel and at Eagle Rock Lake.

Site inspection participants walked most of the areas where historic tailing spill excavation work was done along the Red River riparian area. Mr. Lewis and Mr. Miller with the USFS indicated they know of no areas with river bank erosion that had not been addressed at the time the tailing spill excavation work was done. Additionally, no trees needed to be removed due to impact from tailing spill deposit removal. The inspection team ended the morning with inspection of the work done at Eagle Rock Lake. Mr. Lewis did note that some of the landscaping plants at Eagle Rock Lake had died and would need to be replaced once the growing season started. The Site inspection team assessed the condition of the Mill area, the Mill Yard Flume, the Stilling well RR-7, and Goathill Gulch Flume. No concerns were noted.

Site inspection participants assessed the Lower Capulin Canyon Flume and moved to the Easter Diversion Channel area. Pipeline inlets were inspected and found clear of debris and functional. Water was observed to be emanating from the Eastern Diversion Channel pipeline outlet at Reach 5 during the Site inspection. This is likely the same perched ground water that was intruding into the pipeline during construction in June 2014. During installation of a drop structure at the upstream end of the Eastern Diversion Channel Reach 5 pipeline, shallow, perched groundwater was observed in the excavations.

V. TECHNICAL ASSESSMENT

QUESTION A: Is the remedy functioning as intended by the decision documents?

Question A Summary:
Yes, the RA work completed as removal actions under the AOC is functioning as intended by the 2010 ROD. Other remedy components are expected to be protective upon completion.

Remedial Action Performance

Cleanup levels were achieved for PCB-contaminated soil in the areas excavated. Contaminated soil remaining in three areas at the base of two buildings at the Mill Area and marked with an orange visual marker must be removed when the buildings are removed, per the MMD Permit Revision 96-2 to Permit No. TA001RE.

The large spill at the Lower Dump Sump and tailings spills removed along the Red River riparian corridor met cleanup requirement and RAOs. Tailings and tailing spills left in place due to colocation with, adjacent to or beneath the tailing delivery pipeline and pipeline supports, due to colocation with, adjacent to or beneath the Lower Dump Sump, and within bedding for Mine roads along the Red River and Riparian Area must be cleaned up when these structures are addressed, per MMD Permit Revision 96-1 to Permit No. TA001RE. Periodically, tailing spills that were unknown at the time the tailing spill removal work was done in 2013-2014 are identified. As these tailing spills are found, they are addressed per the work outlined in the *Final Historic Tailing Spills Removal Action Work Plan*.

The ROD did not include specific performance standard for the pipeline construct in the Eastern Diversion Channel. However, a general performance standard, or goal, of this removal action is to prevent or reduce the amount of water infiltrating through the diversion channel invert and lower the ground water table in the area, preventing it from contacting the buried and historic tailing material. The pipeline accommodated this by capturing and isolating irrigation overflows and conveying these flows via buried pipeline over the buried and historic tailing area. The pipeline downgradient of the historic tailing area is required to convey unused irrigation water for discharge downstream from the existing seepage collection system below Dam No. 1. The performance of the pipeline in lowering groundwater levels and reducing molybdenum concentrations in the alluvial aquifer will be evaluated using existing monitoring wells downgradient of the pipeline and the buried and historic tailing area. Monitoring of the general performance goal will be conducted over a five-year performance period.

System Operations/O&M

CMI has indicated that the head gate at Eagle Rock Lake is functioning as intended, but the head gate failed to close completely due to woody debris under the head gate. Follow-up inspections confirmed that in both incidences the head gate was mostly closed with only a small amount of water entering the channel and the lake. Debris was removed promptly. After turbidity and conductivity levels attenuated below the high alarm, the head gate was reopened. CMI will install a grate to catch woody debris within the channel from the Red River and upstream of the head gate by July 2017.

On October 26, 2016, both Sonde 1 and 2 turbidity sensors stopped working. During that time, gate opening and closing was managed by on-Site visual confirmation. The Sonde 2 turbidity probe was replaced and back online November 10, 2016. Due to increasing malfunctions with the sondes, replacement hardware was procured by CMI which includes two new sondes, a replacement Program Logic Controller, and an upgraded touch screen.

Per the approved Post-Construction Inspection and Monitoring Plan, the head gate is manually closed during the winter months and temporarily opened during monthly operation and maintenance events, to maintain the design water level in the lake. If the gate closure was set to an automated state, the closure alarm would correspond to a head gate closure. The head gate remained open at the end of 2016 due to warmer weather.

The biannual inspections at the pipeline installed in the Eastern Diversion Channel identified small stress cracks in the concrete manholes and debris in the pipeline culvert that was removed by CMI. The stress cracks are considered a normal level of wear and do not affect the operation of the pipeline to manage irrigation waters.

Implementation of Institutional Controls and Other Measures

There are separate restrictive covenants for the tailing facility and the mine and mineral processing facility. The Village of Questa is named grantee in each, and EPA, NMED, and EMNRD are designated as third party beneficiaries. The restrictive covenants became effective on May 21, 2009, when they were recorded in the Taos County deed records and run with the land. The tailing facility covenants were intended to prohibit all residential uses prior to the termination of mining activities and, thereafter, to allow only light industry and park, recreational or athletic field uses. The mine and minerals processing facility covenants prohibit recreational use before the termination of mining activities and, thereafter, allows uses which are consistent with the Conservation Easement. The restrictive covenants also prohibit:

- Excavation to a depth of more than 10 feet below ground surface;
- The collection, storage, or use of any present or future spring or other surface water, with the exception of closure or reclamation;
- The use of ground water for human consumption or installation of wells to obtain ground water for any purpose except closure or reclamation.

These proprietary controls should restrict residential land use and ground and surface water uses if they are effectively monitored and enforced. They allow light industrial development over part of the mine property and the Mill Area. The Conservation Easement and restrictive covenants run with the land in perpetuity and are binding on CMI and future owners, tenants, licensees, occupants and users of the property. They are to be maintained and enforced in perpetuity.

To comply with the conditions established by MMD for the pit waiver, CMI must restrict access to the pit through use of perimeter fencing and berms, signage, and institutional controls to ensure that the pit does not pose a current or future hazard to public health or safety.

The Mill Area is currently surrounded by a chain linked fence with restricted access through a central gate with a badge identification system. Signs are posted at the gate and on fences to control access. The existing fence, restricted access through the gate, and signage will be maintained as part of these alternatives.

QUESTION B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

Question B Summary:

Yes, the exposure assumptions and RAOs used at the time of remedy selection are still valid. There are no changes in standards, toxicity factors, risk assessment methods, or exposure pathways that call into question the protectiveness of the remedy. The removal action work has met RAOs or is progressing as expected to meet RAOs.

QUESTION C: Has any other information come to light that could call into question the protectiveness of the remedy?

No other information has come to light that could call into question the protectiveness of the remedy.

VI. ISSUES/RECOMMENDATIONS

The remedy is functioning as intended; the exposure assumptions, toxicity data, clean up levels and RAO's are still valid; and there are no additional data that jeopardize the protectiveness of the remedy. There were no issues or recommendations identified during this FYR that affect the protectiveness of the selected remedy.

Issues/Recommendations
OU(s) without Issues/Recommendations Identified in the Five-Year Review:
OU1: Site-wide

OTHER FINDINGS

In addition, the following requirements and recommendations were identified during the FYR, but do not affect current and/or future protectiveness:

- PCB-contaminated soil remaining in three areas at the base of two buildings at the Mill Area and marked with an orange visual marker must be removed when the buildings are removed, per the Permit Revision 96-2 to Permit No. TA001RE, issued by the Director of the MMD.
- Tailings and tailing spills were left in place due to colocation with, adjacent to or beneath the tailing delivery pipeline and pipeline supports; due to colocation with, adjacent to or beneath the Upper Dump Sump; due to colocation with, adjacent to or beneath the Lower Dump Sump; and within bedding for Mine roads along the Red River Riparian Area. These tailing spills must be cleaned up when these structures are addressed, per Permit Revision 96-1 to Permit No. TA001RE.
- Completion of compensatory wetland mitigation (creation or restoration), associated with the destruction or modification of wetlands during the Remedial Action work completed as Removal Actions, must be completed. Section 404 permits issued by the U.S. Army Corps of Engineers (USACE), under rules finalized in 2008 under Section 404 of the Clean Water Act (33 U.S.C.1344) are required when wetlands are disturbed or destroyed. The acquisition of permits is not required for on-site remedial actions. There is, however, a requirement to meet the substantive provisions of permitting regulations. Mitigation or replacement of the wetlands disturbed or destroyed as part the removal actions is required by the AOC. Approximately 2.15 acres of wetlands were removed from Reach 1 to facilitate Eastern Diversion Channel pipeline construction. Sediment removal at Eagle Rock Lake included removal of 0.55 acre of wetlands on the eastern end of the lake. The removed wetlands will be mitigated under a separate effort at an off-site location; the evaluation for the off-site location is currently underway.
- CMI must continue with best management practices at eliminating flow from up-river springs, Spring 13 and Spring 39. While gray appearing water in the Red River and Eagle Rock Lake may not be attributable to high levels of aluminum, CMI must ensure that the lake sediments are not re-contaminated.
- The Eagle Rock Lake head gate failed to close completely due to woody debris under the head gate. CMI will install a grate to catch woody debris within the channel from the Red River and upstream of the head gate by July 2017.

VII. PROTECTIVNESS STATEMENT

Protectiveness Statement(s)	
Operable Unit: 01	*Protectiveness Determination:* Will be Protective
Protectiveness Statement: The remedy at the Chevron Questa Mine Superfund Site is expected to be protective of human health and the environment upon completion. In the interim, remedial activities completed to date have adequately addressed all exposure pathways that could result in unacceptable risks in these areas.	

VIII. NEXT REVIEW

The next five-year review report for the Chevron Questa Mine Superfund Site is required five years from the completion date of this review.

APPENDIX A – REFERENCE LIST

AECOM, 2013. *Eastern Diversion Channel Removal Action Work Plan for the Chevron Questa Mine Superfund Site Questa, New Mexico.* Denver, CO: AECOM, Inc. June 2013.

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URS. 2012c. *Overall Site Plan for Removal Actions, Chevron Questa Mine Superfund Site, Prepared for Chevron Mining Inc. Questa Mine, Questa, New Mexico.* June.

URS. 2013a. *Questa Removal Action Wetland Assessment Report*, June.

URS, 2013b. *Mill Area Removal Action Completion Report Chevron Questa Mine Superfund Site.* Revision 0. March 6

URS. 2013c. *Chevron Mining Inc. Removal Action Standard Operating Procedure No. 40.0 Excavation Near Utilities*. December.

URS, 2014. *Historic Tailing Spill Removal Action Completion Report Chevron Questa Mine Superfund Site.* Revision 1. September 26

URS. 2015. *Addendum to the Final Mill Area Removal Action (RA) Completion Report (Completion Report) (URS 2013).* January 30.

U.S. Environmental Protection Agency. 2009a. *Final Remedial Investigation Report, Questa Mine*. July.

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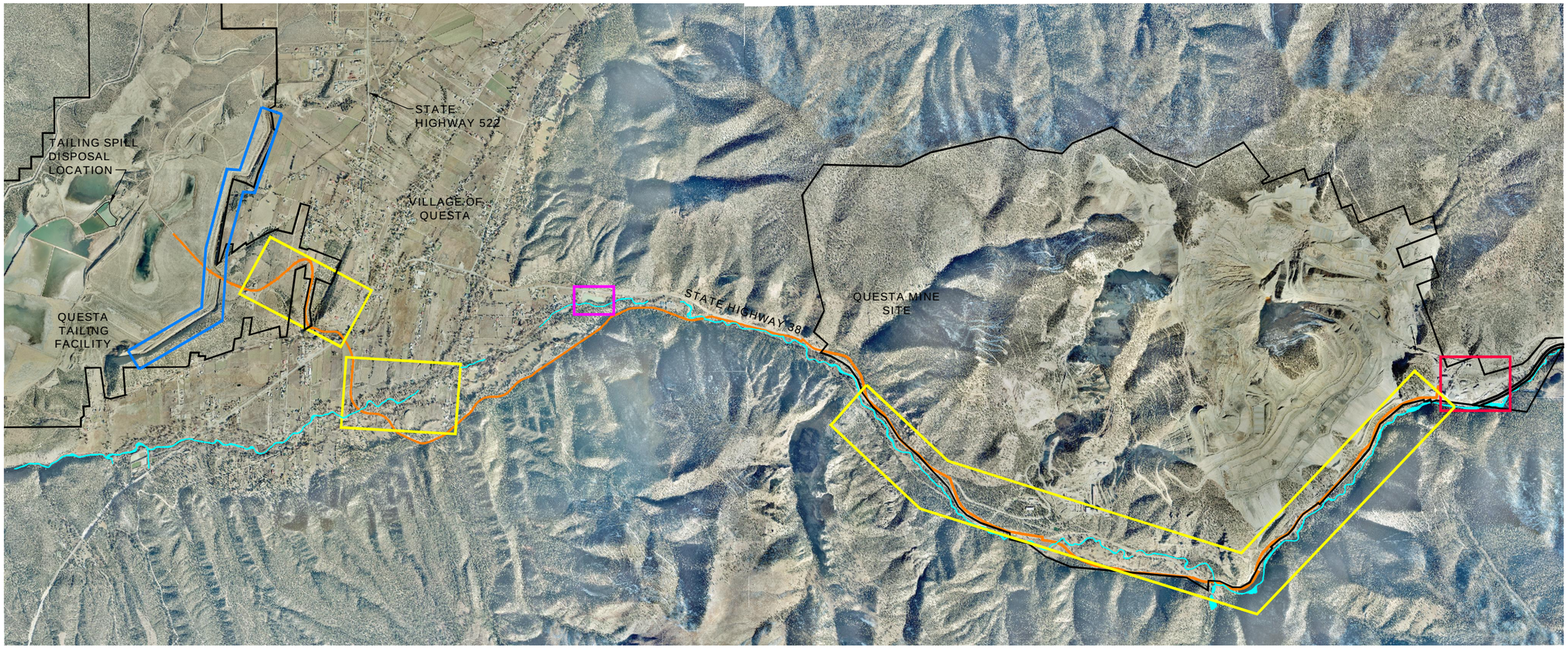
U.S. Environmental Protection Agency. 2012a. In re Chevron Mining Inc., *Administrative Settlement Agreement and Order on Consent for Removal Actions, Chevron Questa Mine Superfund Site, Questa, New Mexico, CERCLA Docket 06-09-12 CERCLIS ID No. NMD002899094*, March 8.

APPENDIX B – SITE CHRONOLOGY

Date	Event
1919 -1958	Conventional underground mining.
1964 – 1983	Open pit mining
1983 – 2014	Underground mining
December 31, 1998	MMD issued Mining Permit TA001RE
April 29, 1999	NMED permits CMI: DP-1055, DP-1539, and DP-132 discharge plan application administratively complete.
April 1, 2000	New Mexico governor requests Site be placed on NPL
May 11, 2000	Site was proposed to the NPL
November 6, 2000	Special Notice Letter to Molycorp
June 9, 2001	Administrative Order on Consent for Remedial Investigation and Feasibility Study (CERCLA Docket No. 6-09-01)
2001 to 2009	Molycorp conducted the RI/FS
August 29, 2002,	Technical Assistance Grant awarded
November 12, 2002	Community Meeting – Scope of the RI/FS and Initial Field Investigation Update
August 26, 2003	Questa Community Coalition Meeting – Update on status of RI field sampling activities
August 27, 2003	Community Meeting – RI Field Investigation Update
June 21, 2004	Questa Community Coalition Meeting – Update on status of RI field sampling activities and preliminary sample results
June 22, 2004	Community Meeting – RI Field Investigation Update
December 30, 2004	Draft Final Report on Historic Tailing Spills
September 14, 2005	Questa Community Coalition Meeting – Update on preliminary RI sampling results for Site characterization
December 9, 2004	Community Meeting – RI Field Investigation Update
June 28, 2005	Community Meeting – RI Field Investigation Update and Introduction to Risk Assessment
August 23, 2007	Community Meeting – Risk Assessment
May 13, 2008	Community Meeting – Preliminary Cleanup Options
December 9, 2008	Questa Community Coalition Meeting – Update on preliminary remedial alternatives
November 24, 2009	Final RI Report
November 16, 2009	Final FS Report
January 21, 2010	Proposed Plan public meeting
January 28, 2010	Proposed Plan public meeting
December 10, 2010	EPA Record of Decision signed

June 2011	Site Health and Safety Plan
May 2012	Final Historic Tailing Spills Removal Action Work Plan
June 2012	Overall Site Plan for Removal Actions
June 2012	Final Mill Area Removal Action Work Plan
June 2012	Final Eagle Rock Lake Removal Action Work Plan
June 5, 2012	Open House for Removal Action work
June 2013	Eastern Diversion Channel Removal Action Work Plan
June 2013	Questa Removal Action Wetland Assessment Report
June 4, 2013	Open House for Removal Action work and Early Design work
August 2013	Eagle Rock Lake Sediment Removal Design Work Plan
March 6, 2013	Mill Area Removal Action Completion Report
December 2013	Chevron Mining Inc. Removal Action Standard Operating Procedure No. 40.0 Excavation Near Utilities
June 2, 2014	Chevron Questa Mine closes
September 2014	Eastern Diversion Channel Removal Action Completion Report
September 26, 2014	Historic Tailing Spill Removal Action Completion Report
January 30, 2015	Addendum to the Final Mill Area Removal Action (RA) Completion Report
April 29, 2015	Removal Action Restoration Plan
November 20, 2015	Post-Construction Inspection and Monitoring Plan
November 20, 2015	Eagle Rock Lake Sediment Removal Action Completion Report
November 3, 2016	Informational Community Meeting and Start of Five-Year Review
March 9, 2017	Informational Community Meeting

APPENDIX C – SITE FIGURES



LEGEND

- QUESTA MINE PROPERTY BOUNDARY (URS SURVEYED 2009)
- RED RIVER
- TAILING PIPELINE
- HISTORIC TAILING SPILLS
- EASTERN DIVERSION CHANNEL
- EAGLE ROCK LAKE
- MILL AREA

N

1600 800 0 1600 3200

SCALE IN FEET

URS

URS Center
8181 East Tufts Avenue
Denver, Co. 80237-2637
303 694-2770 (phone)
303-694-3946 (fax)

REMOVAL ACTION
CHEVRON QUESTA MINE

ISSUED FOR BIDDING DATE BY

ISSUED FOR CONSTRUCTION DATE BY

REVISIONS

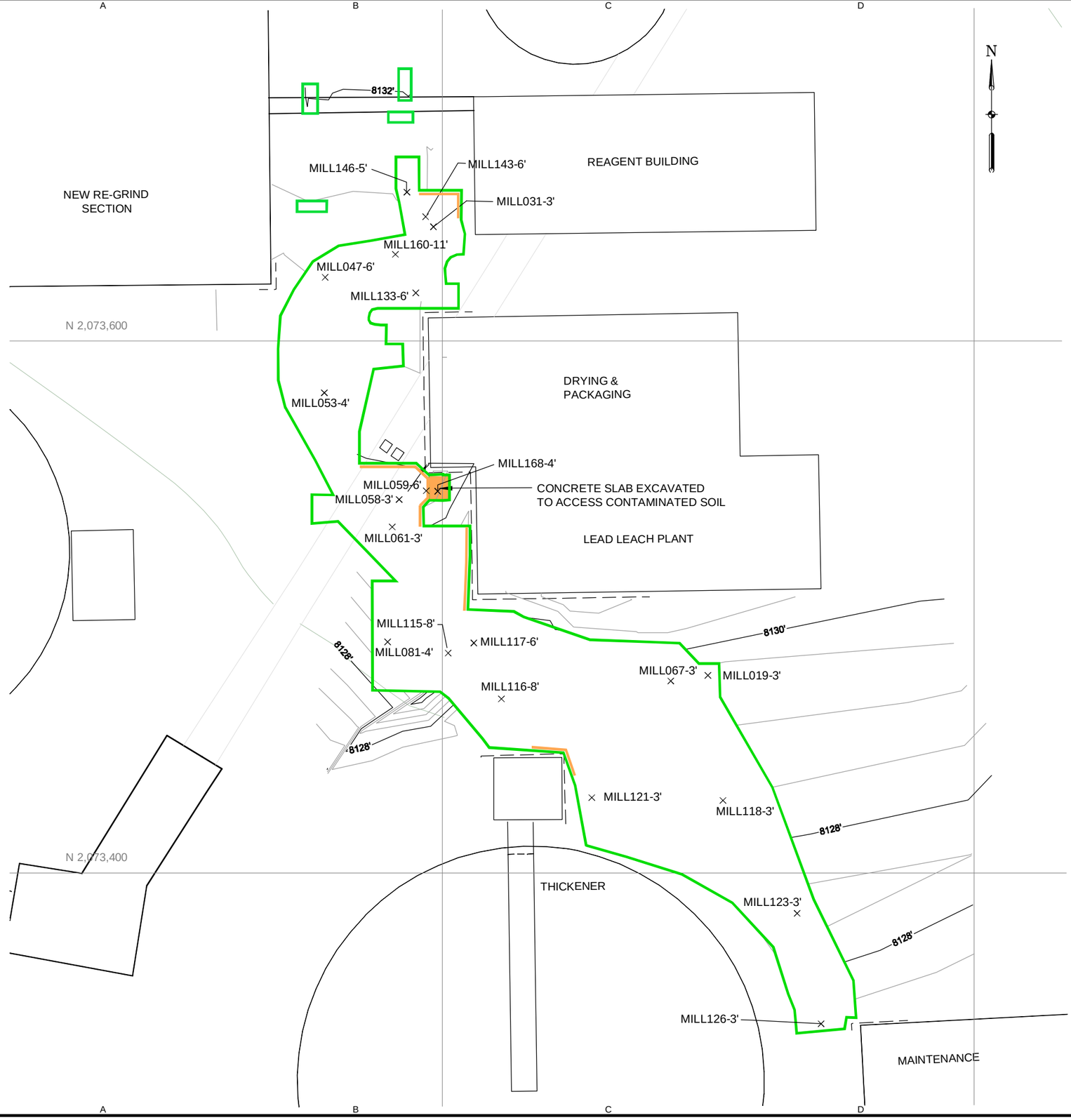
NO.	DESCRIPTION	DATE
△	DRAFT - INTERNAL REVIEW	03/07/12
△		
△		
△		
△		

URS PROJECT NO:	22242182
DRAWN BY:	RAM
DESIGNED BY:	EB
CHECKED BY:	JLB
DATE CREATED:	1/20/12
PLOT DATE:	
SCALE:	AS SHOWN
ACAD VER:	

SHEET TITLE

REMOVAL ACTION LOCATIONS

FIGURE 1



LEGEND:

- 2-FOOT BUFFER NEAR BUILDINGS AND STRUCTURES, DEPTH NOT TO EXCEED 1 FOOT WITHIN THE BUFFER
- APPROXIMATE AREA EXCAVATED (PCBs ≥ 25 MG/KG)
- FINAL GRADING CONTOUR
- × **MILL019-3'** BASE OF EXCAVATION SAMPLE AND APPROXIMATE DEPTH BELOW GROUND SURFACE (FEET) WHERE SAMPLE WAS COLLECTED.
- LOCATION OF VISUAL MARKER INSTALLED IN AN AREA WHERE PCB LEVELS LESS THAN THE CLEANUP LEVEL (25 MG/KG) COULD NOT BE ATTAINED DUE TO THE PRESENCE OF STRUCTURES.

NOTES:

1. EXTENTS OF EXCAVATION BASED ON SURVEY DATA.

20 10 0 20 40
SCALE IN FEET

DRAFT RECORD DRAWING

URS
URS Center
8181 East Tufts Avenue
Denver, Co. 80237-2637
303 694-2770 (phone)
303-694-3946 (fax)

MILL AREA REMOVAL ACTION CHEVRON QUESTA MINE SUPERFUND SITE

ISSUED FOR BIDDING	N/A	DATE BY
ISSUED FOR CONSTRUCTION	N/A	DATE BY

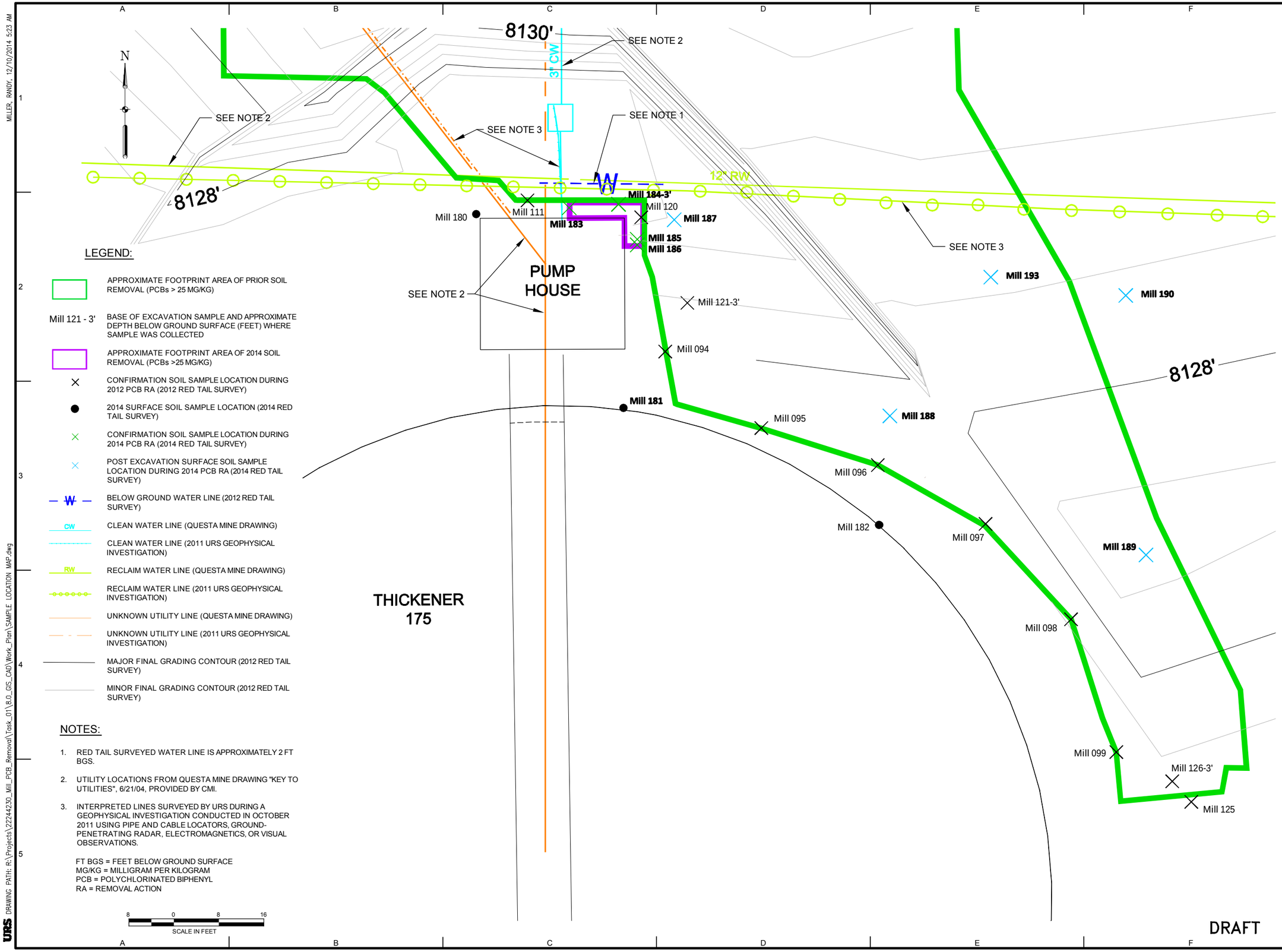
REVISIONS

NO.	DESCRIPTION	DATE
1	RECORD DRAWING	11/16/12

URS PROJECT NO:	22242831
DRAWN BY:	RAM
DESIGNED BY:	JSP
CHECKED BY:	EPB
DATE CREATED:	11/16/12
PLOT DATE:	–
SCALE:	AS SHOWN
ACAD VER:	2011

EXCAVATION PLAN

FIGURE 2



LEGEND:

- APPROXIMATE FOOTPRINT AREA OF PRIOR SOIL REMOVAL (PCBs > 25 MG/KG)
- Mill 121 - 3' — BASE OF EXCAVATION SAMPLE AND APPROXIMATE DEPTH BELOW GROUND SURFACE (FEET) WHERE SAMPLE WAS COLLECTED
- APPROXIMATE FOOTPRINT AREA OF 2014 SOIL REMOVAL (PCBs >25 MG/KG)
- CONFIRMATION SOIL SAMPLE LOCATION DURING 2012 PCB RA (2012 RED TAIL SURVEY)
- 2014 SURFACE SOIL SAMPLE LOCATION (2014 RED TAIL SURVEY)
- CONFIRMATION SOIL SAMPLE LOCATION DURING 2014 PCB RA (2014 RED TAIL SURVEY)
- POST EXCAVATION SURFACE SOIL SAMPLE LOCATION DURING 2014 PCB RA (2014 RED TAIL SURVEY)
- W — BELOW GROUND WATER LINE (2012 RED TAIL SURVEY)
- CW — CLEAN WATER LINE (QUESTA MINE DRAWING)
- CLEAN WATER LINE (2011 URS GEOPHYSICAL INVESTIGATION)
- RW — RECLAIM WATER LINE (QUESTA MINE DRAWING)
- RECLAIM WATER LINE (2011 URS GEOPHYSICAL INVESTIGATION)
- UNKNOWN UTILITY LINE (QUESTA MINE DRAWING)
- UNKNOWN UTILITY LINE (2011 URS GEOPHYSICAL INVESTIGATION)
- MAJOR FINAL GRADING CONTOUR (2012 RED TAIL SURVEY)
- MINOR FINAL GRADING CONTOUR (2012 RED TAIL SURVEY)

NOTES:

1. RED TAIL SURVEYED WATER LINE IS APPROXIMATELY 2 FT BGS.
2. UTILITY LOCATIONS FROM QUESTA MINE DRAWING "KEY TO UTILITIES", 6/21/04, PROVIDED BY CMI.
3. INTERPRETED LINES SURVEYED BY URS DURING A GEOPHYSICAL INVESTIGATION CONDUCTED IN OCTOBER 2011 USING PIPE AND CABLE LOCATORS, GROUND-PENETRATING RADAR, ELECTROMAGNETICS, OR VISUAL OBSERVATIONS.

FT BGS = FEET BELOW GROUND SURFACE
MG/KG = MILLIGRAM PER KILOGRAM
PCB = POLYCHLORINATED BIPHENYL
RA = REMOVAL ACTION

8 0 8 16
SCALE IN FEET

DRAFT

URS
URS Center
8181 East Tufts Avenue
Denver, Co. 80237-2637
303 694-2770 (phone)
303-694-3946 (fax)

MILL AREA REMOVAL ACTION CHEVRON QUESTA MINE SUPERFUND SITE

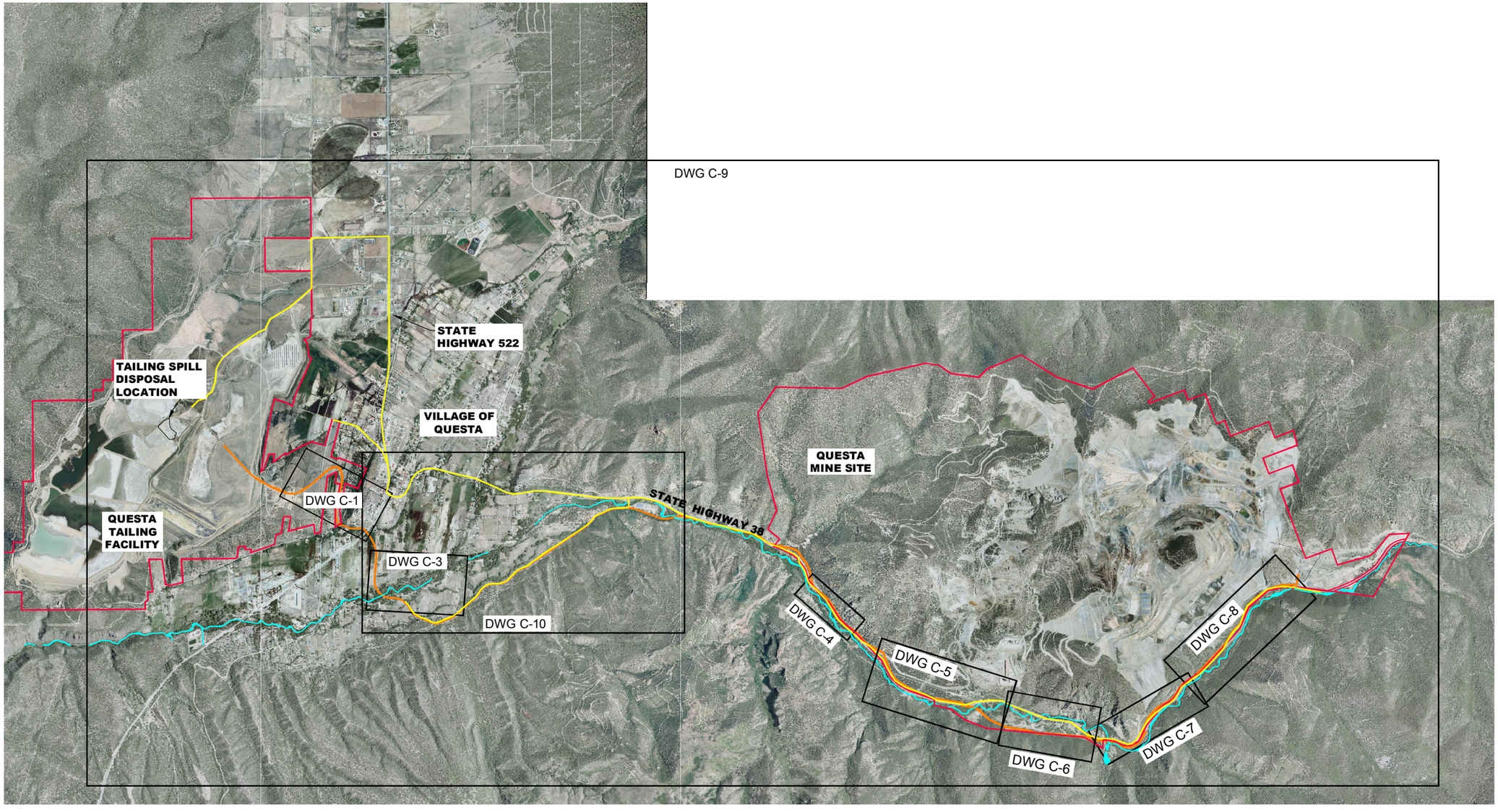
REVISIONS

NO.	DESCRIPTION	DATE
△	PRELIMINARY DRAFT	11/18/14
△		
△		
△		
△		

URS PROJECT NO:	22244230
DRAWN BY:	RAM
DESIGNED BY:	EB
CHECKED BY:	JM
DATE CREATED:	11/18/14
PLOT DATE:	–
SCALE:	AS SHOWN
ACAD VER:	2014

SAMPLE LOCATIONS AND FINAL GRADING NEAR PUMP HOUSE AND THICKENER

Figure 3



ABBREVIATIONS:

CY = CUBIC YARDS

FT = FEET

FT² = SQUARE FEET

" = INCH

MTC = MASCARENAS TRUCKING COMPANY

NA = NOT APPLICABLE

TBD = TO BE DETERMINED

LEGEND

- ROUTE FROM SPILL AREAS TO TAILING SPILL DISPOSAL LOCATION
- QUESTA MINE PROPERTY BOUNDARY (URS SURVEY 2009)
- RED RIVER
- TAILING PIPELINE

N

1800 900 0 1800 3600

SCALE IN FEET

FINAL
RECORD DRAWING

URS

URS Center
8181 East Tufts Avenue
Denver, CO 80237-2637
303 694-2770 (phone)
303-694-3946 (fax)

Chevron

HISTORIC TAILING SPILLS REMOVAL ACTION CHEVRON QUESTA MINE SUPERFUND SITE

ISSUED FOR BIDDING — DATE BY

ISSUED FOR CONSTRUCTION — DATE BY

REVISIONS

NO.	DESCRIPTION	DATE
△	DRAFT COMPLETION REPORT	08/13/14
△	FINAL COMPLETION REPORT	09/26/14
△		
△		
△		

URS PROJECT NO:	22242874
DRAWN BY:	FAM
DESIGNED BY:	EB
CHECKED BY:	
DATE CREATED:	
PLOT DATE:	
SCALE:	AS SHOWN
ACAD VER:	

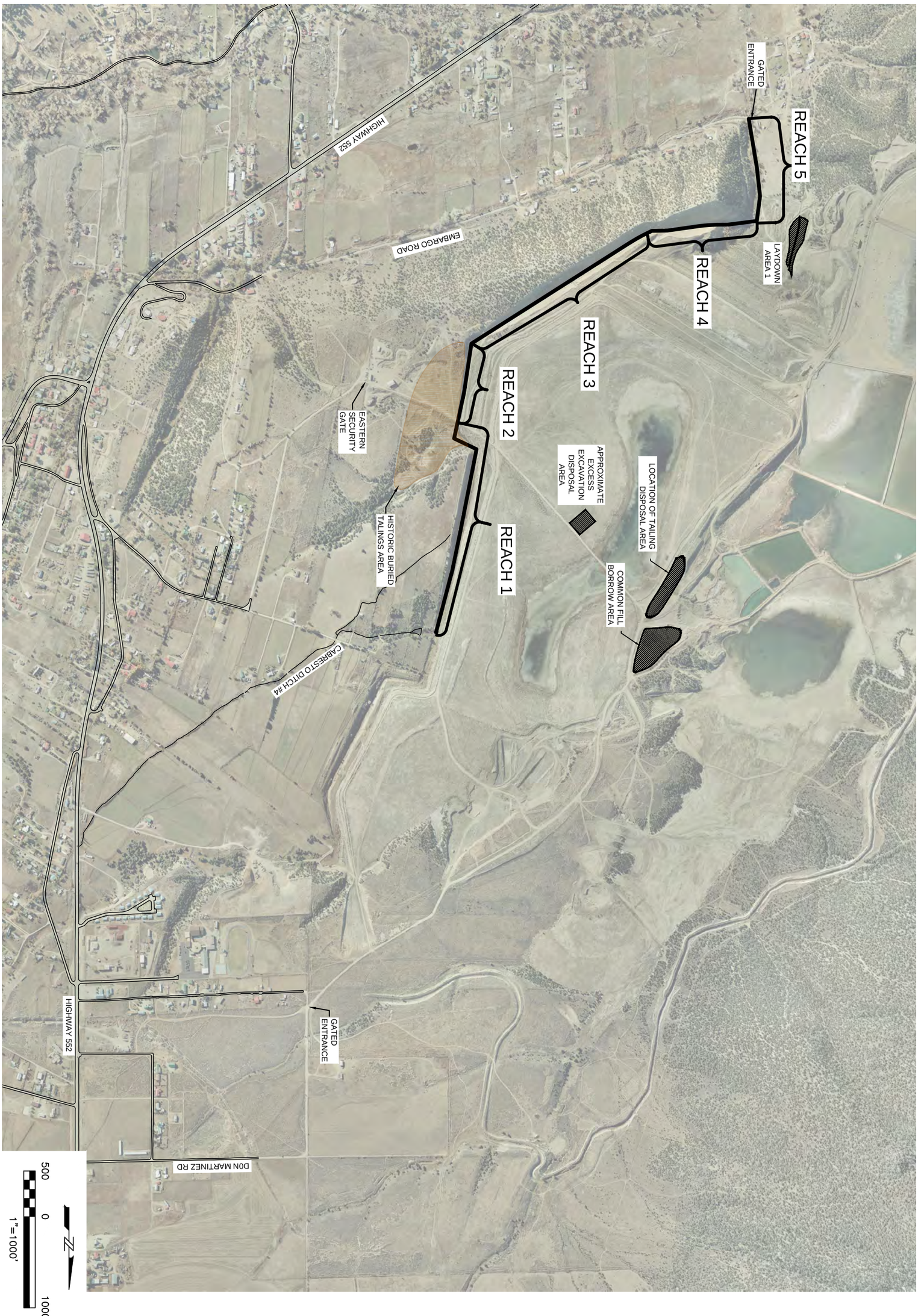
SHEET TITLE

SITE PLAN AND ABBREVIATIONS

FIGURE 4

Last saved by: SCHWARTZE(2014-08-12) Last Plotted: 2014-09-24
Filename: M:\CHEVRON MINING\QUESTA MINE\EASTERN DIVERSION CHANNEL\DWGS\CM-EDC CP_2_SITE PLAN.DWG

Project Management Initials: Designer:_____ Checked:_____ Approved:_____ ANSI B 11" x 17"



Eastern Diversion Channel Removal
Action Completion Report
Questa Mine, Chevron Mining, Inc., Questa, NM
Project No.: 60307900 Date: 08/12/14

SITE PLAN

AECOM

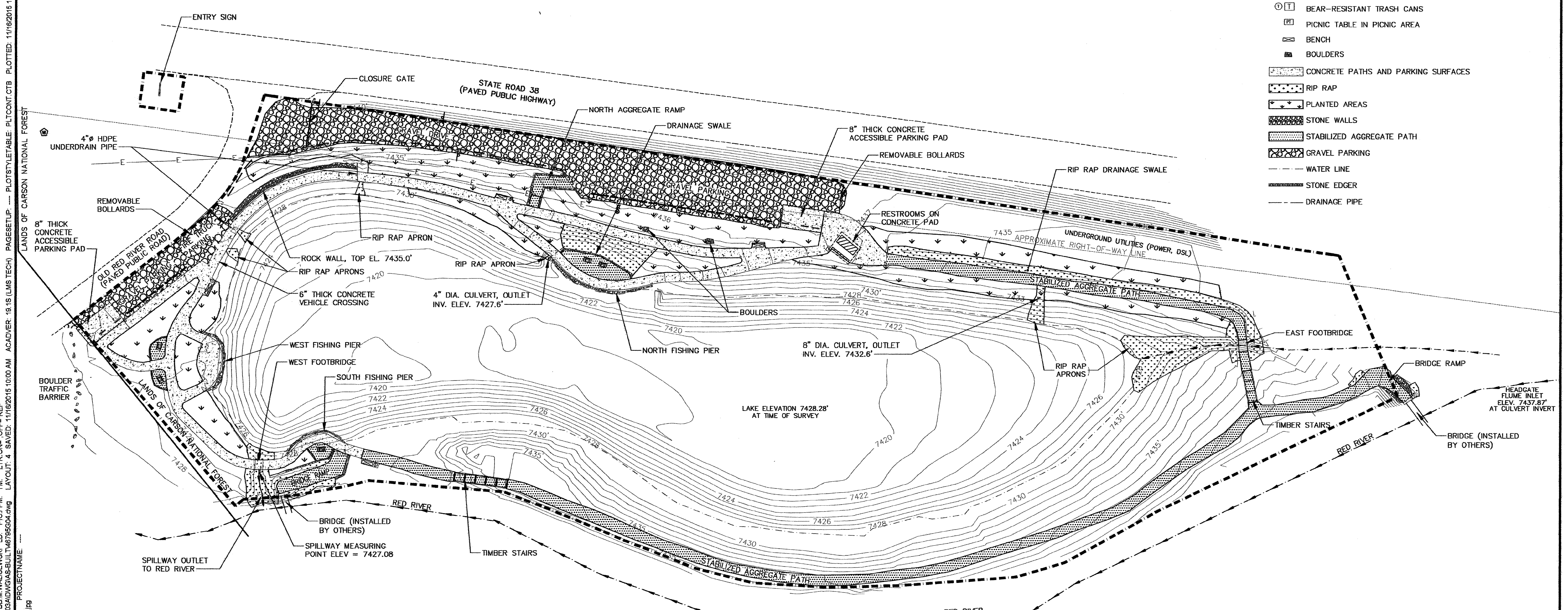
FIGURE 5

NOTES:

1. FINAL CONDITIONS TOPOGRAPHY AND SITE FEATURES PERFORMED BY RED TAIL SURVEYING, INC. OF TAOS, NEW MEXICO IN OCTOBER 2015.
2. FINAL ELEVATIONS SHOWN WITHIN THE LAKE BOUNDARY WERE CREATED BY ADDING 12" TO THE GEOSYNTHETIC CLAY LINER ELEVATION MEASURED BY ENTACT, LLC. ON JUNE 15, 2015 TO REPRESENT TOP OF SAND LAYER INSTALLED.
3. HORIZONTAL DATUM IS MODIFIED NEW MEXICO STATE PLANE COORDINATE SYSTEM. VERTICAL DATUM IS THE QUESTA MINE GRID DATUM. THE QUESTA MINE GRID DATUM IS 2.2 FEET BELOW THE PUBLISHED NAVD88 ORTHOMETRIC DATUM.

LEGEND:

- 7430' — FINAL GRADE CONTOURS (1-FOOT INTERVAL)
- APPROXIMATE LIMIT OF WORK
- GATE
- WATER METER
- FIRE HYDRANT
- WATERCOURSE FLOWLINE
- P — OVERHEAD POWER LINE
- UTILITY POLE
- LIGHT POLE
- SIGN
- STEEL PIPE BOLLARD PARKING FENCE
- T — BEAR-RESISTANT TRASH CANS
- PT — PICNIC TABLE IN PICNIC AREA
- BENCH
- BOULDERS
- CONCRETE PATHS AND PARKING SURFACES
- RIP RAP
- PLANTED AREAS
- STONE WALLS
- STABILIZED AGGREGATE PATH
- GRAVEL PARKING
- WATER LINE
- STONE EDGER
- DRAINAGE PIPE



RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, THESE RECORD DRAWINGS SUBSTANTIALLY REPRESENT THE PROJECT AS CONSTRUCTED.

DATE 11/16/15 BY [signature]

1"=40' — 40' 0 40' 80'

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd

Professional Engineer's Name		
REBECCA LINDEMAN		
Professional Engineer's No.		
16777		
State	Date Signed	Project Mgr.
NM	11/16/15	RP
Designed by	Drawn by	Checked by
NF	KLS	AJE

REBECCA LINDEMAN NEW MEXICO 16777 PROFESSIONAL ENGINEER

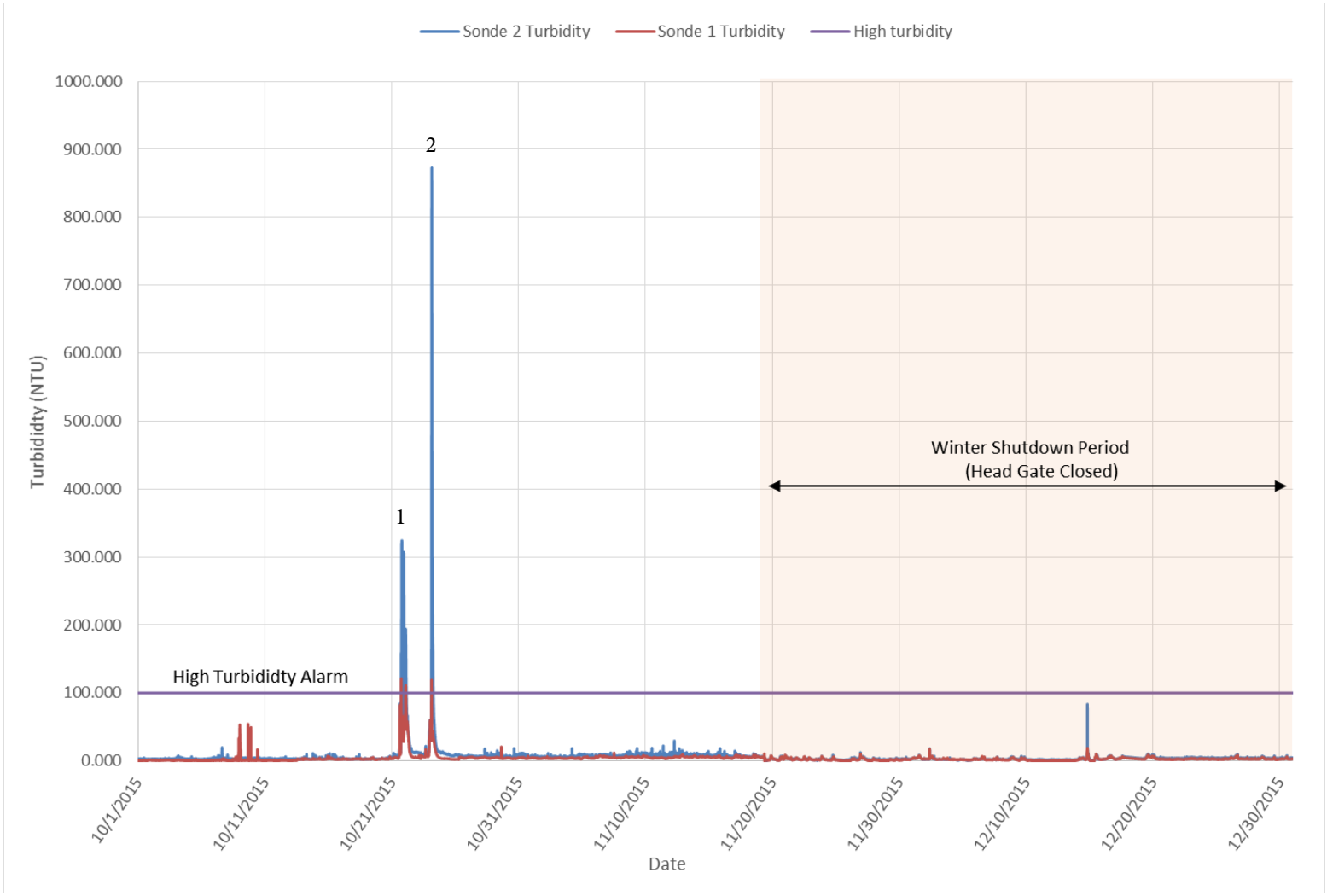
ARCADIS Design & Consultancy for natural and built assets
ARCADIS U.S., INC.

Chevron

CHEVRON MINING INC., • QUESTA MINE
EAGLE ROCK LAKE SEDIMENT REMOVAL DESIGN WORK PLAN - RECORD DRAWINGS
FINAL CONDITIONS
GENERAL

ARCADIS Project No. B0046795.0029.0003A
Date NOVEMBER 2015
ARCADIS U.S., INC.
630 PLAZA DR., SUITE 100
HIGHLANDS RANCH, CO, 80129
TEL. (720) 344-3500

FIGURE 6



Notes:

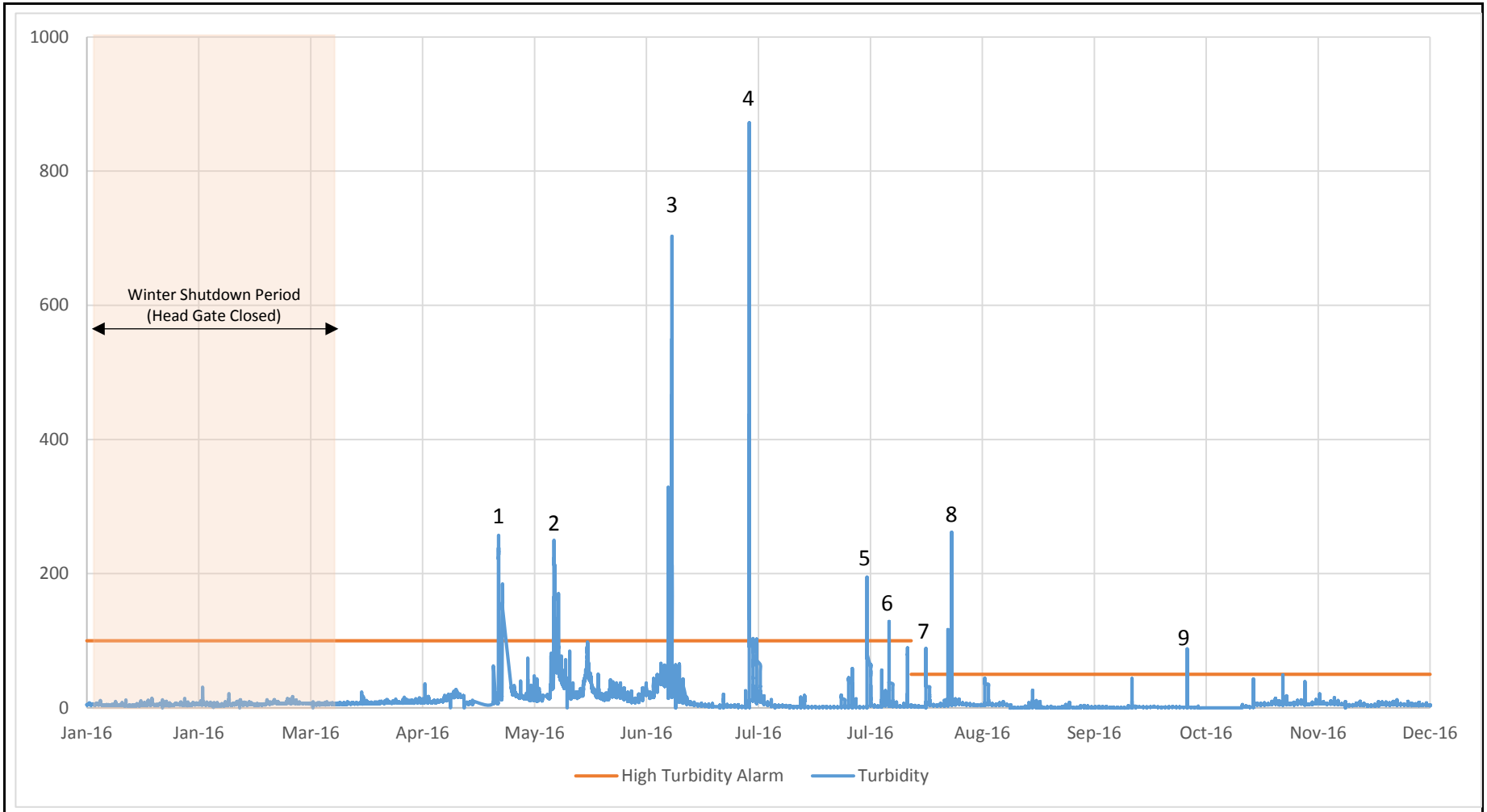
1. Data excludes Questionable data ("Q" flagged), Rejected data ("R" flagged), or data during the month of operation and maintenance visit (O&M flagged).
2. High turbidity alarm set to 100 NTU.
3. Values labeled on graph corresponding to storm number listed on Table B1.

CHEVRON MINING INC. QUESTA MINE
EAGLE ROCK LAKE, QUESTA, NEW MEXICO
2015 ANNUAL MONITORING REPORT

2015 Head Gate Turbidity Data

ARCADIS

FIGURE
7



Notes:

1. Data excludes questionable data (Q flagged), rejected data (R flagged), or data collected during routine operation and maintenance visits.
2. High turbidity alarm was set to 100 NTU until August 12, 2016. The alarm was then lowered to 50 NTU.
3. Values labeled on graph correspond to the storm events listed on Table 1.

CHEVRON MINING INC. QUESTA MINE

EAGLE ROCK LAKE, QUESTA, NEW MEXICO

2016 ANNUAL MONITORING REPORT

Head Gate Turbidity Data

ARCADIS

FIGURE

8

APPENDIX D – TABLES

Table 1
Eagle Rock Lake 2015 Water Depth and Water Quality Measurements

Sample ID	Collection Date	Water Depth (ft)	Water Quality Measurements				
			Temperature (°C)	Dissolved Oxygen (mg/L)	pH (unitless)	Conductivity (mS/cm)	Turbidity (NTU)
Deep Water Sample Locations							
ERL-BC-D-01	9/28/2015	7.4	13.7	8.65	8.18	0.304	0.70
ERL-BC-D-02	9/29/2015	7.8	12.7	9.56	8.28	0.306	0.90
ERL-BC-D-03	9/29/2015	9.1	12.5	8.55	8.19	0.305	1.0
ERL-BC-D-04	9/29/2015	9.3	13.0	8.74	8.24	0.305	1.0
ERL-BC-D-05	9/29/2015	6.5	14.9	8.21	8.28	0.305	0.90
Shallow Water Sample Locations							
ERL-BC-S-01	9/28/2015	3.1	13.9	8.30	8.31	0.304	1.4
	9/29/2015	3.6	13.2	8.25	8.31	0.304	1.6
ERL-BC-S-02	9/28/2015	2.5	14.9	8.61	8.26	0.303	0.90
	9/29/2015	3.0	12.8	8.28	8.30	0.304	2.3
ERL-BC-S-03	9/28/2015	2.0	14.9	8.58	8.33	0.304	3.8
	9/29/2015	2.5	13.5	8.43	8.36	0.303	1.4
ERL-BC-S-04	9/28/2015	2.8	15.6	8.43	8.36	0.305	1.9
	9/29/2015	3.2	13.4	8.20	8.32	0.304	1.0
ERL-BC-S-05	9/28/2015	2.0	14.6	8.53	8.37	0.304	3.1
	9/29/2015	2.5	13.5	8.36	8.31	0.305	0.90

Notes:
1. Water depth measurements were collected using a Hawkeye Model H22PX handheld depth sounder.
2. Water quality measurements were collected using a YSI Professional Plus multi-parameter water quality probe.
3. Red River Eagle Rock Lake head gate was opened the evening of 9/28/2015, causing the water level to rise approximately 0.5 ft overnight.

°C = degrees Celsius
ft = feet
mg/L = milligrams per liter
mS/cm = milliSiemens per centimeter
NTU = nephelometric turbidity units

Table 2
Eagle Rock Lake 2015 Benthic Macroinvertebrate Community Results

Taxon	Common Name	Sample Locations					
		ERL-BC-D-COMP 9/29/2015 Deep	ERL-BC-S-01 9/28/2015 Shallow	ERL-BC-S-02 9/28/2015 Shallow	ERL-BC-S-03 9/28/2015 Shallow	ERL-BC-S-04 9/28/2015 Shallow	ERL-BC-S-05 9/28/2015 Shallow
INSECTA							
DIPTERA							
Chironomidae (larvae)	midge	98	72	20	30	30	24
Chironomidae (pupae)	midge	14	2	1	--	1	--
Dolichopodidae (larvae)	long-legged fly	1	--	--	--	--	--
Muscidae (larvae)	house fly	1	--	--	--	--	--
ANNELIDA							
OLIGOCHAETA							
Enchytraeidae	pot worm	--	--	--	1	--	--
Tubificidae	sludge worm	--	1	--	--	--	--
CRUSTACEA							
OSTRACODA	mussel shrimp	1	--	--	--	--	--
Total Taxa		4	2	1	2	1	1
Total Organisms		115	75	21	31	31	24
Total Density (no./m^2)		1000	652	183	270	270	209
Shannon-Weiner Diversity		0.15	0.07	0.00	0.14	0.00	0.00

Notes:
1. Sample ERL-BC-D-COMP is the composite of ERL-BC-D-01, ERL-BC-D-02, ERL-BC-D-03, ERL-BC-D-04, and ERL-BC-D-05.
2. Lowest identifiable taxonomic unit is presented.
3. Total density is based on the number of total organisms per square meter (no./m^2) using a combined surface area of the petite ponar dredge as 0.115 m^2 (based on five dredges collected per sample).
4. Shannon-Wiener Diversity is based on natural log method calculated as:

$$H' = -\sum p_i * \ln p_i$$

where p_i = number of individuals per species / total number of individuals

Table 3
Eagle Rock Lake 2015 Sand Cover Analytical Results

Constituent	Units	Cleanup Level Values[1]	ERLSP-M-SS-T03N-SOL Sand Cover Collection Date: 2/20/15		ERLSP-M-CO-T09N-SOL Compost Collection Date: 4/1/15	
			Result	Qualifier	Result	Qualifier
Analytical Results						
Aluminum	mg/kg	25,500	5850		140	B
Antimony	mg/kg	--	5.2	U	6.2	U
Arsenic	mg/kg	--	1.70		0.62	U
Barium	mg/kg	--	48.9		11.8	
Beryllium	mg/kg	--	0.45		0.37	U
Boron	mg/kg	--	10.3	U	4.2	J
Cadmium	mg/kg	0.99	0.12	J	0.19	J
Calcium	mg/kg	--	1980	B	1440	B
Chromium	mg/kg	--	8.6		0.46	J
Cobalt	mg/kg	--	4.7		1.2	U
Copper	mg/kg	31.6	13.1		1.1	J
Iron	mg/kg	--	10300		199	B
Lead	mg/kg	--	5.9		0.27	J
Magnesium	mg/kg	--	1910		278	B
Manganese	mg/kg	630	214		39.1	B
Mercury	mg/kg	--	0.014	U	0.017	U
Molybdenum	mg/kg	10	0.23	J	1.2	U
Nickel	mg/kg	22.7	8.3		0.62	U
Potassium	mg/kg	--	821		714.0	
Selenium	mg/kg	2	1.0	U	1.5	
Silver	mg/kg	--	0.52	U	0.62	U
Sodium	mg/kg	--	162.0		124	U
Thallium	mg/kg	--	1.0	U	12.4	U
Vanadium	mg/kg	--	16.8		1.2	U
Zinc	mg/kg	121	23.7		11.8	
General Chemistry Results						
Percent Solids	%	--	92.3		77.5	
Total Organic Matter	%	--	0.2		99.4	
Geotechnical Results						
Moisture Content	%	--	6.3		--	
Gravel	%	--	33		--	
Sand	%	--	59.8		--	
Coarse Sand	%	--	*16.6*		--	
Medium Sand	%	--	*30.8*		--	
Fine Sand	%	--	*12.4*		--	
Fines	%	--	7.2		--	
Sieve Size 3 inch	%	--	0		--	
Sieve Size 2 inch	%	--	0		--	
Sieve Size 1.5 inch	%	--	0		--	
Sieve Size 1 inch	%	--	0		--	
Sieve Size 0.75 inch	%	--	0		--	
Sieve Size 0.375 inch	%	--	12.8		--	

Table 3
Eagle Rock Lake 2015 Sand Cover Analytical Results

Constituent	Units	Cleanup Level Values[1]	ERLSP-M-SS-T03N-SOL		ERLSP-M-CO-T09N-SOL	
			Sand Cover		Compost	
			Collection Date: 2/20/15		Collection Date: 4/1/15	
			Result	Qualifier	Result	Qualifier
Sieve Size #4	%	--	20.2		--	
Sieve Size #10	%	--	16.6		--	
Sieve Size #20	%	--	16.3		--	
Sieve Size #40	%	--	14.5		--	
Sieve Size #60	%	--	7.6		--	
Sieve Size #80	%	--	2.2		--	
Sieve Size #100	%	--	0.8		--	
Sieve Size #200	%	--	1.8		--	

Notes:
[1] Cleanup level values from Table 12-17 of the Record of Decision (USEPA 2010)

-- not established or not applicable
% = percent
B = Compound was found in the blank and sample.
J = Result is less than the reporting limit but greater than or equal to the method detection limit; the concentration is approximate.
U = Analyte was analyzed for but not detected.
mg/kg = milligram per kilogram

References:
USEPA. 2010. Record of Decision for Molycorp, Inc. Questa, New Mexico, CERCLIS ID No: NMD002899094. USEPA. December.

Table 4
Eagle Rock Lake 2015 Sediment Grain Size, Moisture, and Organic Content Results

Sample ID: Collection Date: Sample Area: Parameter	Units	ERL-BC-D-COMP 9/29/2015 Deep	ERL-BC-S-01 9/28/2015 Shallow	ERL-BC-S-02 9/28/2015 Shallow	ERL-BC-S-03 9/28/2015 Shallow	ERL-BC-S-04 9/28/2015 Shallow	ERL-BC-S-05 9/28/2015 Shallow
Miscellaneous							
Moisture Content	%	14.6	13.2	17.3	15.4	15.1	15.8
Total Organic Matter	%	0.60	0.50	0.50	0.50	0.50	0.50
Grain Size							
Fines	%	0.40	0.60	0.40	0.20	0.70	0.20
Fine Sand	%	3.4	10.6	15.5	9.0	13.3	12.6
Medium Sand	%	8.9	20.3	26.9	20.8	29.8	26.2
Coarse Sand	%	20.7	21.9	21.5	25.7	24.3	21.1
Gravel	%	66.6	46.6	35.7	44.3	31.9	39.9

Notes:
1. Sample ERL-BC-D-COMP is the composite of ERL-BC-D-01, ERL-BC-D-02, ERL-BC-D-03, ERL-BC-D-04, and ERL-BC-D-05.
2. Grain size by ASTM method D422, moisture by ASTM method D2216-90, and total organic matter by ASTM method D2974.

% = percent
ASTM = ASTM International

Table 5
Eagle Rock Lake 2015 Closures Due to Elevated Turbidity or Conductivity Readings

Storm Number	Date Time Closed	Date Time Open	Alarm Type
1	10/21/2015 6:05 PM	10/23/2015 6:55 AM	High River Turbidity
2	10/24/2015 3:25 PM	10/26/2015 6:55 AM	High River Turbidity

Notes:
1. Storm numbers are illustrated on Figure 6 to match the corresponding turbidity peak.
2. Closures evaluated from October 1 through December 31, 2015.

Table 6
Eagle Rock Lake 2015 Closures Due to Non-Turbidity Events

Date Time Closed	Date Time Open	Alarm Type
10/5/15 2:15 PM	10/6/15 1:15 PM	Sonde Discord (Electrical Issue)
10/12/15 7:05 AM	10/12/15 8:15 AM	Actuator Fault (Powerline issue)
10/13/15 12:55 PM	10/13/15 1:45 PM	Monthly O&M
11/17/15 1:08 AM	11/18/15 4:05 PM	Actuator Fault (Powerline issue)
11/18/15 9:35 PM	11/19/15 8:25 AM	Actuator Fault (Powerline issue)
11/19/15 11:15 AM	12/16/15 2:05 PM	Winter Shutdown[1]
12/17/15 2:45 PM	--	Monthly O&M

Notes:
[1] During winter shutdown periods, the head gate is intermittently opened for 1-3 days to allow for refilling of the lake.
Closures evaluated from October 1 through December 31, 2015.
O&M = operation and maintenance

Table 7
Eagle Rock Lake 2016 Closures Due to Elevated Turbidity or Conductivity Readings

ARCADIS Design & Consultancy for natural and built assets

Storm Number	Date Time Closed	Date Time Open	Alarm Type
1	4/21/16 8:15 PM	4/22/16 6:45 AM	High River Turbidity
1	4/22/16 9:05 PM	4/26/16 4:14 PM	High River Turbidity
2	5/3/16 1:39 PM	5/10/16 11:45 AM	High River Turbidity
3	6/5/16 4:14 PM	6/8/16 3:44 PM	High River Turbidity (partially open due to debris)
4	6/29/16 6:54 PM	7/1/16 9:54 AM	High River Turbidity
5	7/31/16 10:38 PM	8/1/16 6:28 AM	High River Turbidity
6	8/6/16 8:08 PM	8/7/16 9:28 AM	High River Turbidity
7	8/16/16 9:18 PM	8/17/16 6:28 AM	High River Turbidity
8	8/22/16 4:08 PM	8/25/16 10:28 AM	High River Turbidity
9	10/26/16 6:05 PM	10/27/16 7:35 AM	High River Turbidity
10	12/18/16 6:41 PM	12/22/16 10:41 AM	High River Conductivity
11	12/26/16 4:31 PM	12/29/16 3:21 PM	High River Conductivity (partially open due to debris)
12	12/30/16 10:31 PM	1/1/17 7:25 PM	High River Conductivity

Notes:

1. Storm numbers 1 through 9 are illustrated on Figure 6 to match the corresponding turbidity peak.

Table 8
Eagle Rock Lake 2016 Closures Due to Non-Turbidity Events

ARCADIS Design & Consultancy for natural and built assets

Date Time Closed	Date Time Open	Alarm Type
--	3/2/16 11:39 AM	Open for Spring
3/14/16 3:03 PM	3/14/16 3:13 PM	Actuator Fault (Powerline issue)
3/26/16 2:03 PM	3/26/16 2:23 PM	Actuator Fault (Powerline issue)
4/8/16 7:20 PM	4/8/16 7:50 PM	High River Turbidity[1]
4/12/16 12:13 PM	4/13/16 7:56 AM	Monthly O&M
4/13/16 2:24 PM	4/13/16 5:24 PM	Closed due to electrical issue[2]
4/20/16 10:55 AM	4/20/16 11:05 AM	Closed due to electrical issue[2]
4/29/16 8:34 AM	5/3/16 12:49 PM	Unknown closure[3]
5/10/16 12:25 PM	5/10/16 12:55 PM	Monthly O&M
5/10/16 6:24 PM	5/11/16 6:14 AM	High River Turbidity[1]
5/11/16 10:44 AM	5/11/16 1:04 PM	High River Turbidity[1]
5/11/16 1:54 PM	5/11/16 3:14 PM	High River Turbidity[1]
5/11/16 3:34 PM	5/11/16 8:44 PM	High River Turbidity[1]
5/15/16 3:24 PM	5/17/16 7:44 AM	Actuator Fault (Powerline issue)
5/20/16 10:54 PM	5/23/16 10:54 AM	Actuator Fault (Powerline issue)
5/23/16 3:24 PM	5/24/16 7:04 AM	Actuator Fault (Powerline issue)
6/1/16 5:14 AM	6/1/16 7:44 AM	Actuator Fault (Powerline issue)
6/9/16 9:44 AM	6/9/16 10:04 AM	Monthly O&M
6/9/16 8:24 PM	6/10/16 2:44 PM	Actuator Fault (Powerline issue)
6/28/16 6:04 PM	6/29/16 3:34 PM	Actuator Fault (Powerline issue)
7/2/16 5:44 AM	7/5/16 12:54 AM	Actuator Fault (Powerline issue)
7/14/16 11:13 AM	7/14/16 11:53 AM	Monthly O&M
7/17/16 11:43 PM	7/18/16 12:23 PM	Actuator Fault (Powerline issue)
7/19/16 3:53 PM	7/19/16 5:38 PM	Unknown closure[3]
7/24/16 1:38 PM	7/25/16 6:28 AM	Actuator Fault (Powerline issue)
7/27/16 3:18 AM	7/27/16 2:58 PM	Actuator Fault (Powerline issue)
8/5/16 6:18 PM	8/6/16 9:08 AM	Actuator Fault (Powerline issue)
8/16/16 10:18 AM	8/16/16 10:28 AM	Monthly O&M
8/18/16 6:38 AM	8/18/16 6:58 AM	Actuator Fault (Powerline issue)
8/22/16 1:48 PM	8/22/16 2:58 PM	Actuator Fault (Powerline issue)
8/29/16 9:38 AM	8/29/16 11:38 AM	Actuator Fault (Powerline issue)
9/15/16 2:08 AM	9/15/16 3:49 AM	Actuator Fault (Powerline issue)
9/15/16 11:59 AM	9/16/16 3:19 PM	Actuator Fault (Powerline issue)
9/22/16 6:19 AM	9/22/16 7:39 AM	Actuator Fault (Powerline issue)
9/22/16 9:19 PM	9/23/16 6:59 PM	Actuator Fault (Powerline issue)
10/9/16 3:19 PM	10/10/16 3:39 PM	Actuator Fault (Powerline issue)
10/26/16 5:55 PM	10/27/16 7:35 AM	High River Turbidity[1]
10/29/16 12:45 AM	11/1/16 11:15 AM	Actuator Fault (Powerline issue)
11/5/16 8:35 AM	11/6/16 2:25 PM	Remote O&M event
11/17/16 11:05 AM	11/19/16 10:35 AM	Actuator Fault (Powerline issue)
11/27/16 6:25 AM	11/28/16 8:21 AM	Actuator Fault (Powerline issue)
12/8/16 12:51 PM	12/8/16 1:21 PM	Monthly O&M

Table 8
Eagle Rock Lake 2016 Closures Due to Non-Turbidity Events

Notes:

O&M = operation and maintenance

[1] Instantaneous spike in turbidity in Sonde 1 while Sonde 2 maintained normal turbidity levels. Therefore, it is assumed it was not due to a storm. The gate closed for each alarm.

[2] Uninterrupted Power Supply panel malfunction

[3] Gate closed due to an unknown reason, alarm was not received.

APPENDIX E – COMMUNITY NOTICE POST CARDS, INTERVIEW FORMS, COMMUNITY MEETING SUMMARY

November 3, 2017 Community Meeting Notice
March 9, 2017 Community Meeting notice
Example – Five-Year Review Community Member Interview Questionnaire
Example – Five-Year Review State and CMI Interview Questionnaire
Example – Community Involvement Plan Community Member Interview Questionnaire
Five-Year Review Interview Questionnaire – completed by Joseph Fox, NMED
Five-Year Review Interview Questionnaire – completed by Joseph Marcoline, NMED
Five-Year Review Interview Questionnaire – completed by Davena Crosley, MMD
Five-Year Review Interview Questionnaire – completed by Cynthia Gulde, CMI
Summary Report on Community Meeting submitted by Facilitator Felicia L. Orth

Chevron Questa Mine Superfund Site
Community Meeting
November 3, 2016 5:30 pm – 7:30 pm
VFW POST 2597 North Highway 522 Questa, New Mexico

The U.S. Environmental Protection Agency (EPA) in coordination with the New Mexico Environment Department (NMED) and the New Mexico Energy, Minerals, and Natural Resources Department will hold a community meeting on November 3, 2016.

During the meeting, the agencies will provide an update on current and future cleanup work at the Questa mine followed by a question and answer session.
Following the question and answer session, agency personnel will be available to talk with the community.

Beginning in November 2016, EPA will begin the First Five-Year Review for the Chevron Questa Site. The First Five-Year Review will determine if the cleanup work conducted so far at the Site remains protective of human health and the environment.

Gary Baumgarten, EPA Remedial Project Manager
Phone: (214) 665- 6749
Email: Baumgarten.Gary@epa.gov

Janetta Coats, EPA Community Involvement Coordinator
Phone: (214) 665-7308 or 1-800-533-3508
Email: Coats.Janetta@epa.gov

Joseph Fox, NMED Project Manager
Phone: (505) 222-9560
Email: Joseph.Fox@state.nm.us

Mailing Address: U.S. EPA Region 6, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202

Additional site information is available at the Site local document repository, located at Village of Questa, 2500 Old State Road 3, P.O. Box 260, Questa, New Mexico 87556. A Site Profile for this site can be found at www.epa.gov/superfund/chevron-questa-mine

This Meeting is being held in a fully accessible facility. Should you have specific needs or questions about the facility, please contact Janetta Coats, Community Involvement Coordinator, at (214) 665-7308 or toll-free (800) 533-3508.

Chevron Questa Mine Superfund Site
Community Meeting
November 3, 2016 5:30 pm – 7:30 pm
VFW POST 2597 North Highway 522 Questa, New Mexico

The U.S. Environmental Protection Agency (EPA) in coordination with the New Mexico Environment Department (NMED) and the New Mexico Energy, Minerals, and Natural Resources Department will hold a community meeting on November 3, 2016.

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Chevron Questa Mine Superfund Site
Community Meeting
March 9, 2017 5:30 pm – 7:30 pm
VFW POST 2597 North Highway 522 Questa, New Mexico

The U.S. Environmental Protection Agency (EPA) in coordination with the New Mexico Environment Department (NMED) and the New Mexico Energy, Minerals, and Natural Resources Department will hold a community meeting on March 9, 2017.

During the meeting, the agencies will provide an update on current and future cleanup work at the Questa mine followed by a question and answer session.
Following the question and answer session, agency personnel will be available to talk with the community.

We are in the process of revising the Community Involvement Plan (CIP) to assist communication between community members and EPA. The CIP identifies areas of current interest and potential concerns of the local community at the Chevron Questa Mine Superfund site.

Gary Baumgarten, EPA Remedial Project Manager
Phone: (214) 665- 6749
Email: Baumgarten.Gary@epa.gov

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Mailing Address: U.S. EPA Region 6, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202

Additional site information is available at the Site local document repository, located at Village of Questa, 2500 Old State Road 3, P.O. Box 260, Questa, New Mexico 87556. A Site Profile for this site can be found at www.epa.gov/superfund/chevron-questa-mine

This Meeting is being held in a fully accessible facility. Should you have specific needs or questions about the facility, please contact Janetta Coats, Community Involvement Coordinator, at (214) 665-7308, (800) 533-3508 (toll-free), or at coats.janetta@epa.gov

Chevron Questa Mine Superfund Site
Community Meeting
March 9, 2017 5:30 pm – 7:30 pm
VFW POST 2597 North Highway 522 Questa, New Mexico

The U.S. Environmental Protection Agency (EPA) in coordination with the New Mexico Environment Department (NMED) and the New Mexico Energy, Minerals, and Natural Resources Department will hold a community meeting on March 9, 2017.

During the meeting, the agencies will provide an update on current and future cleanup work at the Questa mine followed by a question and answer session.
Following the question and answer session, agency personnel will be available to talk with the community.

We are in the process of revising the Community Involvement Plan (CIP) to assist communication between community members and EPA. The CIP identifies areas of current interest and potential concerns of the local community at the Chevron Questa Mine Superfund site.

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This Meeting is being held in a fully accessible facility. Should you have specific needs or questions about the facility, please contact Janetta Coats, Community Involvement Coordinator, at (214) 665-7308, (800) 533-3508 (toll-free), or at coats.janetta@epa.gov

Five-Year Review Chevron Questa Mine Superfund Site Questa, New Mexico	Interviewee: Affiliation: Telephone: Email address:

Site Name	EPA ID Number	Date of Interview	Interview Method
Chevron Questa Mine	NMD002899094		Phone/email/face to face

Interview Contacts

Name	Organization	Phone	Email	Address
Janetta Coats	EPA Region 6	214-665-7308	coats.janetta@epa.gov	1445 Ross Ave, (6SF-VO) Dallas, Texas 75202

Purpose of the Community Interviews

The purpose of the Five-Year Review community interviews is to determine whether the remedy at a site is/remains protective of human health and the environment and to evaluate the implementation and performance of the selected remedy. Community interviews are conducted to get the views of the community about current site conditions, problems or related concerns.

Interview Questions

Interview Category: Local Government

1. Are you aware of the environmental issues at the site and the cleanup activities that have taken place to date, including:
   - Sediment cleanup at Eagle Lake
   - Tailing spill removal along State the Red River between the Village of Questa and the town of Red River
   - Polychlorinated biphenyl (PCB)-contaminated soil cleanup at the Mill area
   - Piping of unused irrigation water in the Eastern Diversion Channel, to prevent infiltration through historic buried tailing

2. If so, what is your overall impression of the cleanup, including sediment cleanup and recreation area improvements at Eagle Lake?

3. From your perspective, what effects have the cleanup, Lake, had on the surrounding community?

4. Are you aware of any incidents at the site such as vandalism, trespassing or any activity requiring emergency response from local authorities? If so, please provide details.

5. Are you aware of any changes to state laws or local regulations in the past five years that might affect the protectiveness of the site's remedy?

6. Are you aware of any changes in projected land use(s) at the site?

7. Do you have any comments, suggestions or recommendations regarding any aspects of the cleanup?

8. Do you think there may be any opportunities for future reuse of the site? If so, do you have any comments, suggestions or recommendations?

9. Do you give permission for the following to be included in the Five-Year Review Report and appendices, which becomes a public document? Please initial below.

a) Your name? Yes _____ No _____
b) Your affiliation? Yes _____ No _____
c) Your responses? Yes _____ No _____

Five-Year Review and Community Involvement Plan (CIP) Chevron Questa Mine Superfund Site Questa, New Mexico	Interviewee: Affiliation: Telephone: Email address:

Site Name	EPA ID Number	Date of Interview	Interview Method
Chevron Questa Mine	NMD002899094		Phone/email/face to face

Interview Contact

Name	Organization	Phone	Email	Address
Janetta Coats	EPA Region 6	214-665-7308	coats.janetta@epa.gov	1445 Ross Ave, (6SF-VO) Dallas, Texas 75202

Purpose of Interviews

Five-Year Review interviews are key to understanding Site status and to evaluate the implementation and performance of the selected remedy.

Interview Questions

Section One: The following questions pertain to the Removal Action cleanup work conducted for the following project areas:

- Removal of polychlorinated biphenyl contaminated soil at the Mill Area and off-site treatment and disposal of the excavated soil;
- Piping of unused irrigation water in the Eastern Diversion Channel to prevent its infiltration through historic buried tailing in the Tailing Facility Area;
- Removal of tailing spill deposits along the Red River Riparian Area, including the large tailing pile at the Lower Dump Sump and on-site disposal of the excavated material at the Tailing Facility Area; and
- Installation of inlet storm water controls at Eagle Rock Lake, removal of Eagle Rock Lake sediment and on-site disposal of the excavated material.

1. What is your overall impression of the Removal Action work, including cleanup, maintenance and reuse activities (as appropriate)?

2. What is your assessment of the current performance of the Removal Actions in place at the Site?

3. Are you aware of any community concerns regarding the Site or the operation and management of its remedy? If so, please provide details.

4. Are you aware of any complaints or inquiries regarding Removal Action cleanup work environmental issues from residents since the implementation of the cleanup?

5. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's Removal Action work?

6. Are you aware of any changes to state laws or local regulations that might affect the protectiveness of the Site's Removal Action cleanup work?

7. Has your office conducted any site-related activities or communications since the start of the Removal Action cleanup work? If so, please describe the purpose and results of these activities.

Section Two: The following questions pertain to the entire Mine Site:

1. What have been the effects of this Site on the surrounding community, if any?

2. Are you aware of any changes in projected land use(s) at the Site?

3. Are you aware of any incidents at the site such as vandalism, trespassing or any activity requiring emergency response from local authorities? If so, please provide details

4. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's remedy?

Community Involvement Plan (CIP) Chevron Questa Mine Superfund Site Questa, New Mexico	Interviewee: Affiliation: Telephone: Email address:

Site Name	EPA ID Number	Date of Interview	Interview Method
Chevron Questa Mine	NMD002899094		Phone/email/face to face

Interview Contacts

Name	Organization	Phone	Email	Address
Janetta Coats	EPA Region 6	214-665-7308	coats.janetta@epa.gov	1445 Ross Ave, (6SF-VO) Dallas, Texas 75202

Purpose of the Community Interviews

The purpose of the community interviews is to promote two-way communication between citizens and the EPA to provide opportunities for meaningful and active involvement by the community in the cleanup process. EPA's Regional Office will oversee the implementation of the community involvement activities outlined in the CIP.

Interview Questions

Section One: KNOWLEDGE/AWARENESS CONCERNING SITE

1. Are you aware of the site? If so, how did you learn of it and what do you know about it?

2. Are you aware of the information repositories for Chevron Questa Mine?

3. Are you aware of any controversy involving the site? If so, please explain.

4. How is Chevron Mining Inc. (CMI), the Potentially Responsible Party (PRP), perceived within the community?

5. How are EPA, NMED, MMD perceived within the community with regard to cleanup of the mine Site?

Section Two: CONCERNS ABOUT THE SITE

1. Have you had any problems on your property that you think are attributable to the site?

2. What concerns do you have about the site's contamination?

3. Do have health concerns regarding the Site contamination? If so, what are they?

4. Are you aware of other concerns that your neighbors may have regarding the Site?

5. What should be the priority focus on the site moving forward?

6. Do you think there may be any opportunities for future reuse of the site? If so, do you have any comments, suggestions or recommendations?

Section 3: FUTURE INFORMATION ABOUT SITE/CLEANUP

1. Do you want to be kept informed about what is going on at the site?

2. Would you like to be more actively involved—and if so, how?

3. What kind of information do you need about the site? Are there any particular items you would like to know more about?

4. What would enable you to feel fully engaged in the cleanup of Chevron Questa Mine?

5. How often would you like to receive information about the site?

6. How often would you like EPA, NMED, and MMD to be present at the site?

7. What are the best ways to keep you and other residents informed about the site? Would any of the following be useful in getting information to you about the site, if so, can you provide specifics:
   - Newspaper
   - Radio
   - Television
   - Meeting or event—if so, where and when?
   - Fact Sheets, newsletters or flyer—where and how should these be distributed?
   - Civic or service clubs
   - Schools, youth groups or church
   - Social media and internet (Facebook, websites or others)

8. Can you share any ideas on how to get local schools aware of the site?

9. Where are the best places to post signs or notices about the site?

10. What locations are best for holding community meetings?

11. Who else in the community should we be talking to?

12. Are any organized environmental groups active in the community? If so, who?

13. Do you want to be included on the site's mailing list that may be shared with local, state and Federal agencies and possibly other non-government contacts?

Do you have any comments, suggestions, or recommendations regarding the site or its administration that haven't been addressed above?

Five-Year Review and Community Involvement Plan (CIP) Chevron Questa Mine Superfund Site Questa, New Mexico	Interviewee: Joseph Fox Affiliation: NMED Telephone: (505) 222-9560 Email address: joseph.fox@state.nm.us

Site Name	EPA ID Number	Date of Interview	Interview Method
Chevron Questa Mine	NMD002899094	3/14/17	Phone/email/face to face

Interview Contact

Name	Organization	Phone	Email	Address
Janetta Coats	EPA Region 6	214-665-7308	coats.janetta@epa.gov	1445 Ross Ave, (6SF-VO) Dallas, Texas 75202

Purpose of Interviews

Five-Year Review interviews are key to understanding Site status and to evaluate the implementation and performance of the selected remedy.

Interview Questions

Section One: The following questions pertain to the Removal Action cleanup work conducted for the following project areas:

- Removal of polychlorinated biphenyl contaminated soil at the Mill Area and off-site treatment and disposal of the excavated soil;
- Piping of unused irrigation water in the Eastern Diversion Channel (EDC) to prevent its infiltration through historic buried tailing in the Tailing Facility Area;
- Removal of tailing spill deposits along the Red River Riparian Area, including the large tailing pile at the Lower Dump Sump and on-site disposal of the excavated material at the Tailing Facility Area; and
- Installation of inlet storm water controls at Eagle Rock Lake, removal of Eagle Rock Lake sediment and on-site disposal of the excavated material.

1. What is your overall impression of the Removal Action work, including cleanup, maintenance and reuse activities (as appropriate)?
   - PCBs at the Mill Area: The remedy as implemented is functioning as intended. The current land use for the area is still appropriate.
   - Piping of irrigation water in the EDC: The construction and implementation of the action appears to be functioning as designed. It has yet been determined if this action will achieve the ground water cleanup goals. The current land use for the area is still appropriate.
   - Tailing Spills along the Red River: The remedy as implemented is functioning as intended but has yet been fully completed. The current land use for the area is still appropriate.
   - Eagle Rock Lake: The sediment removal and reconstruction of the lake appears to be functioning as intended. The current land use is appropriate for the area.

2. What is your assessment of the current performance of the Removal Actions in place at the Site?
   - PCBs at the Mill Area: There are a few areas where the removal of PCBs was not completed due to site infrastructure. As site closure progresses, the removal of PCBs in those areas will need to be implemented during the demolished of the mill facility buildings and structures.
   - Piping of irrigation water in the EDC: The project is being monitored over a five-year performance period and the project is intended to lower local ground water levels in the area, eliminate surface water flow from coming in contact with tailing and lead to achievement of

ground water cleanup levels and ARARs. It has yet been determined if this action will achieve these goals.

- Tailing Spills along the Red River: There are many areas where cleanup of tailing was not completed due to site infrastructure. The remaining cleanup in these areas will be implemented once the water treatment plant is permanently online and the piping from the Mill area to the Tailing facility is no longer needed.
- Eagle Rock Lake: The automatically actuated headgate, based on turbidity readings, appears to be functioning as intended. There is concern of high aluminum concentrations entering the lake during Red River low flow conditions due to the poor effectiveness of the NPDES BMPs at eliminating flow from Spring 13 and 39 areas.

3. Are you aware of any community concerns regarding the Site or the operation and management of its remedy? If so, please provide details.
   - Eagle Rock Lake: There is public concern that the lake is still "turning grey" due to high aluminum concentrations in the river during early winter low flow conditions. Also, it was voiced at the community meeting that the fire department's stand pipe at the edge of the lake has been damaged. The permanence and protection from damage of this pipe was also a concern at the time of the construction completion walk thru and report.
   - Lack of Red River surface water data along the mine site and tailing facility.

4. Are you aware of any complaints or inquiries regarding Removal Action cleanup work environmental issues from residents since the implementation of the cleanup?
   - Already mentioned above.

5. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's Removal Action work?

6. Are you aware of any changes to state laws or local regulations that might affect the protectiveness of the Site's Removal Action cleanup work? No

7. Has your office conducted any site-related activities or communications since the start of the Removal Action cleanup work? If so, please describe the purpose and results of these activities.
   - Yes, ongoing CERCLA activities and site closure under state permit authority.

Section Two: The following questions pertain to the entire Mine Site:

1. What have been the effects of this Site on the surrounding community, if any?
   - There has been very positive response on the reuse of the Eagle Rock lake since the removal action.

2. Are you aware of any changes in projected land use(s) at the Site?
   - None that would affect the removal actions.

3. Are you aware of any incidents at the site such as vandalism, trespassing or any activity requiring emergency response from local authorities? If so, please provide details
   - No known.

4. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's remedy?
   - My input is continually given on site closure and implementing the CERCLA ROD.

Community Involvement Plan (CIP) Chevron Questa Mine Superfund Site Questa, New Mexico	Interviewee: Joseph Marcoline Affiliation: NMED Telephone: Email address: Joseph.Marcoline@state.nm.us

Site Name	EPA ID Number	Date of Interview	Interview Method
Chevron Questa Mine	NMD002899094		Phone/email/face to face

Interview Contact

Name	Organization	Phone	Email	Address
Janetta Coats	EPA Region 6	214-665-7308	coats.janetta@epa.gov	1445 Ross Ave, (6SF-VO) Dallas, Texas 75202

Purpose of Interviews

Five-Year Review interviews are key to understanding Site status and to evaluate the implementation and performance of the selected remedy.

Interview Questions

Section One: The following questions pertain to the Removal Action cleanup work conducted for the following project areas:

- Removal of polychlorinated biphenyl contaminated soil at the Mill Area and off-site treatment and disposal of the excavated soil;
- Piping of unused irrigation water in the Eastern Diversion Channel to prevent its infiltration through historic buried tailing in the Tailing Facility Area;
- Removal of tailing spill deposits along the Red River Riparian Area, including the large tailing pile at the Lower Dump Sump and on-site disposal of the excavated material at the Tailing Facility Area; and
- Installation of inlet storm water controls at Eagle Rock Lake, removal of Eagle Rock Lake sediment and on-site disposal of the excavated material.

1. What is your overall impression of the Removal Action work, including cleanup, maintenance and reuse activities (as appropriate)?

   CMI and their contractors did an excellent job performing the work as required in the SOW

2. What is your assessment of the current performance of the Removal Actions in place at the Site?

   We are still waiting for the data to evaluate the performance - too early to speculate

3. Are you aware of any community concerns regarding the Site or the operation and management of its remedy? If so, please provide details.
   yes, there are numerous concerns from the community- both real and percieved

4. Are you aware of any complaints or inquiries regarding Removal Action cleanup work environmental issues from residents since the implementation of the cleanup?

   yes, numerous inquires of "what is occurring and who is driving all of those out of state trucks"

5. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's Removal Action work?

   Increase communication, reconsider not having a facilitator or at a minimum please use a different one that listens and does not speak down to the community

6. Are you aware of any changes to state laws or local regulations that might affect the protectiveness of the Site's Removal Action cleanup work?

   yes. the uranium standard changed in 1997 from 5 mg/l to 0.03 mg/l and the RI sampling for soil vegetables, tailing did not include evaluation of Uranium at the new standard it is suggested that the remedy may not comply with ARARS and not be protective

7. Has your office conducted any site-related activities or communications since the start of the Removal Action cleanup work? If so, please describe the purpose and results of these activities.
   daily inspections, meetings, calls and document review, please see the quarterly reports submitted to EPA for details

Section Two: The following questions pertain to the entire Mine Site:

1. What have been the effects of this Site on the surrounding community, if any?

   It took thousands and thousands of pages in EPA's RI to answer this question. The only effects not identified in the RI are related to Uranium in GW and soils, see answer above

2. Are you aware of any changes in projected land use(s) at the Site?

   To date I am unaware of any request to EMNRD to change the post mining land use

3. Are you aware of any incidents at the site such as vandalism, trespassing or any activity requiring emergency response from local authorities? If so, please provide details

   no

4. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's remedy?

   It is unclear if this refers to suggestions for CMI or the agencies?

Community Involvement Plan (CIP) **Chevron Questa Mine Superfund Site** **Questa, New Mexico**	**Interviewee:** Affiliation: New Mexico Mining & Minerals Division Telephone: 505-476-3425 Email address: davena.crosley@state.nm.us

Site Name	**EPA ID Number**	**Date of Interview**	**Interview Method**
Chevron Questa Mine	NMD002899094	03/20/2017	Phone/email/face to face

Interview Contact

Name	**Organization**	**Phone**	**Email**	**Address**
Janetta Coats	EPA Region 6	214-665-7308	coats.janetta@epa.gov	1445 Ross Ave, (6SF-VO) Dallas, Texas 75202

Purpose of Interviews

Five-Year Review interviews are key to understanding Site status and to evaluate the implementation and performance of the selected remedy.

Interview Questions

Section One: The following questions pertain to the Removal Action cleanup work conducted for the following project areas:

- Removal of polychlorinated biphenyl contaminated soil at the Mill Area and off-site treatment and disposal of the excavated soil;
- Piping of unused irrigation water in the Eastern Diversion Channel to prevent its infiltration through historic buried tailing in the Tailing Facility Area;
- Removal of tailing spill deposits along the Red River Riparian Area, including the large tailing pile at the Lower Dump Sump and on-site disposal of the excavated material at the Tailing Facility Area; and
- Installation of inlet storm water controls at Eagle Rock Lake, removal of Eagle Rock Lake sediment and on-site disposal of the excavated material.

1. What is your overall impression of the Removal Action work, including cleanup, maintenance and reuse activities (as appropriate)?

   Chevron has been thorough and conscientious in the quality of work performed at the Questa Mine Site thus far.

2. What is your assessment of the current performance of the Removal Actions in place at the Site?

   The Removal Actions in place appear to be effective and functioning as designed.

3. Are you aware of any community concerns regarding the Site or the operation and management of its remedy? If so, please provide details.

   The Village of Questa, Taos County, and community members have expressed multiple concerns related to the Questa Mine Site. However, these concerns are not directly related to the Removal Action work.

4. Are you aware of any complaints or inquiries regarding Removal Action cleanup work environmental issues from residents since the implementation of the cleanup?

   Concerns were expressed by the community that Eagle Rock Lake was gray and had a bad odor after Removal Action cleanup work was completed. These concerns were reported to the state agencies in November of 2016. NMMMD and NMED inspected Eagle Rock Lake after hearing these concerns and did not observe the reported conditions.

5. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's Removal Action work?

   NMMMD appreciated the EPA's continued collaboration in addressing portions of the Questa Mine site that are regulated by both (or multiple) agencies and is anxious for reclamation work to continue as quickly as possible.

6. Are you aware of any changes to state laws or local regulations that might affect the protectiveness of the Site's Removal Action cleanup work?

   No

7. Has your office conducted any site-related activities or communications since the start of the Removal Action cleanup work? If so, please describe the purpose and results of these activities.

   NMMMD conducts inspections of the Questa Mine site a minimum of once per month to monitor the progress of reclamation activities and ensure that work is progressing as required. NMMMD has participated in numerous meetings with EPA and NMED, before, during and after Removal Action cleanup work.

Section Two: The following questions pertain to the entire Mine Site:

1. What have been the effects of this Site on the surrounding community, if any?

   The Questa Mine Site has negatively impacted surface and ground water. Water contamination continues to be a primary community concern. In general the effects of large scale mine disturbance.

2. Are you aware of any changes in projected land use(s) at the Site?

   The Village of Questa has expressed interest in using the tailing facility area for recreational use after reclamation work is completed. Any Post Mining Land Use, other that Wildlife Habitat as designated in the MMD permit, will require careful evaluation. NM MMD would likely not approve a recreational PMLU, allowing for the use of motorcycles or ATVs.

3. Are you aware of any incidents at the site such as vandalism, trespassing or any activity requiring emergency response from local authorities? If so, please provide details

   No.

4. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's remedy?

   More community involvement would be helpful.

Five-Year Review and Community Involvement Plan (CIP) Chevron Questa Mine Superfund Site Questa, New Mexico	Interviewee: Cynthia Gulde Affiliation: Chevron (CMI) Telephone: 303-930-4116 Email address: cgulde@chevron.com

Site Name	EPA ID Number	Date of Interview	Interview Method
Chevron Questa Mine	NMD002899094	4/12/17	Phone/email/face to face

Interview Contact

Name	Organization	Phone	Email	Address
Janetta Coats	EPA Region 6	214-665-7308	coats.janetta@epa.gov	1445 Ross Ave, (6SF-VO) Dallas, Texas 75202

Purpose of Interviews

Five-Year Review interviews are key to understanding Site status and to evaluate the implementation and performance of the selected remedy.

Interview Questions

Section One: The following questions pertain to the Removal Action cleanup work conducted for the following project areas:

- Removal of polychlorinated biphenyl contaminated soil at the Mill Area and off-site treatment and disposal of the excavated soil;
- Piping of unused irrigation water in the Eastern Diversion Channel to prevent its infiltration through historic buried tailing in the Tailing Facility Area;
- Removal of tailing spill deposits along the Red River Riparian Area, including the large tailing pile at the Lower Dump Sump and on-site disposal of the excavated material at the Tailing Facility Area; and
- Installation of inlet storm water controls at Eagle Rock Lake, removal of Eagle Rock Lake sediment and on-site disposal of the excavated material.

1. What is your overall impression of the Removal Action work, including cleanup, maintenance and reuse activities (as appropriate)? Activities went well. All work was done in accordance with work plan and achieved in a reasonable amount of time. Maintenance associated with the lake and Eastern Diversion channel is progressing smoothly as designed and approved by the EPA. The lake is actively being used by community with good feedback.

2. What is your assessment of the current performance of the Removal Actions in place at the Site? All are working as intended/designed.

3. Are you aware of any community concerns regarding the Site or the operation and management of its remedy? If so, please provide details. No. CMI has heard some concern over the levels of water in Eagle Rock Lake during winter months but that is during low flow of the river so lake levels appear to be as expected for that time of year.

4. Are you aware of any complaints or inquiries regarding Removal Action cleanup work environmental issues from residents since the implementation of the cleanup? No.

5. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's Removal Action work? No.

6. Are you aware of any changes to state laws or local regulations that might affect the protectiveness of the Site's Removal Action cleanup work? No.

7. Has your office conducted any site-related activities or communications since the start of the Removal Action cleanup work? If so, please describe the purpose and results of these activities. No.

Section Two: The following questions pertain to the entire Mine Site:

1. What have been the effects of this Site on the surrounding community, if any? There are ongoing local concerns related to shut-down of the mine and potential contaminants associated with groundwater and tailing. Both of these are monitored through existing networks and operating permits.

2. Are you aware of any changes in projected land use(s) at the Site? No.

3. Are you aware of any incidents at the site such as vandalism, trespassing or any activity requiring emergency response from local authorities? If so, please provide details. No

4. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's remedy? No.

Report on Public Meeting in Questa, New Mexico

March 9, 2017

Submitted by Facilitator Felicia L. Orth

I. A Brief Summary of Questa Residents' Concerns

A. Water is Contaminated

Specific concerns expressed included: the Red River is contaminated and has not been sampled since 2011 or 2012; the delays in the completion of the water treatment plant continue in violation of the Administrative Order; elk are drinking contaminated water and may not be safe to eat; aluminum still exceeds standards; the dams may rupture; the Red River flows into the Rio Grande and may contaminate it.

B. EPA is Facing an Existential Threat Since the 2016 Election and Chevron/EPA May Not be Required or Allowed to Finish the Job of Cleanup

Specific concerns expressed included: EPA may be abolished or have its funding slashed or frozen; the Consent Decree is not final until a judge signs it; Congress may weaken the Clean Water Act or otherwise provide a basis to undo the Consent Decree.

II. A Report on the Rest of the Meeting

A. Opening and Introductory Presentation

Dozens of local residents attended the evening meeting. Attendees signed sign-in sheets and bottled water was provided. In addition to local residents, staff and members of management from the Environmental Protection Agency, the New Mexico Energy, Minerals, and Natural Resource Department Mining and Minerals Division, and the New Mexico Environment Department Ground Water Bureau were present.

Janetta Coats of the Environmental Protection Agency (EPA) opened the meeting with a greeting, and a brief introduction of Sam Coleman (EPA), Holland Shepherd (EMNRD), Kurt Vollbrecht (NMED), Questa Mayor Gallegos, and Gary Baumgarten, Remedial Project Manager (EPA).

Mr. Baumgarten presented a slide show on the progress of the clean-up of the Molycorp site, and specific information on ground water, surface water, and the tailings facility.

Mr. Baumgartner first noted that tap water sampling had been conducted in Questa as a result of concerns expressed at the last meeting that drinking water lines were running through tailings piles. He stated that NMED would continue to collect and analyze tap water samples; Joe Marcoline, who was present, is the contact.

Mr. Baumgartner spoke about the constituents of concern in ground water at the site—manganese, molybdenum and uranium, all well below standards. A copy of the sampling results was left at Village offices. As to surface water, aluminum is the only contaminant of concern, not for humans but for trout. Although the Red River has been separated into different levels of exposure, the most recent sampling shows aluminum right at the levels necessary to protect trout.

Regarding the tailing facility, the water treatment that was planned never worked and never came on line. In December 2016, Chevron decided to send the water to the tailing facility (1,000 gpm) and said it would complete the water treatment plant in February 2017. Chevron has made progress and is now saying that the plant will be completed in May, 2017, and be fully compliant by June 9, 2017. Water on top of the tailings has been reduced to just wet area known as the 'the duck pond.'

Mr. Baumgarten showed diagrams of the different aquifers at the site, the movement of water there, the seepage interception system, and monitoring well results.

Mr. Baumgarten also noted that work was occurring under permits from the New Mexico Environment Department and the Mining and Minerals Division of EMNRD, and introduced Holland Shepherd. Mr. Shepherd spoke about early design actions, the decommissioning of the mill building, tailing pipeline removal, primary and secondary crusher decommissioning, and the subsidence zone closure plan. Most of the Mill Area structures are gone now, and the tailings removed. MMD is reviewing areas not addressed by CERCLA, including the nine-mile long pipeline. A workplan to remove the pipeline was submitted on March 1, 2017; MMD is reviewing it. They are also looking at Slick Line Gulch, the 'glory hole,' and reclamation at the bottom of Goat Hill.

Mr. Baumgarten stated that future presentations would cover other ground water zones.

Ms. Coats then spoke about EPA's desire to engage the community, and the planned revision of the community involvement plan. Her office has been conducting interviews with local residents, over the telephone, in person, and over e-mail. The information provided is confidential, and no names are used in the summary that will be prepared. They would like to complete the interviews in the next few weeks; Ms. Coats invited anyone seeking an interview to see her. Ms. Coats introduced Felica Orth to lead the question and answer period.

B. Question and Answer Period

Questions posed included inquiries (answers in parentheses) about:

1. water rights (Chevron has enough water rights to conduct the cleanup; water rights to the Village for re-development will have to be negotiated with Chevron.)

2. the protection of wildlife from contamination at the site (The stream is not barricaded. An elk fence is called for in the ROD, but the timing is unknown. John Rauscher of EPA noted that trout sampled were within safe concentrations, and that the risk to cattle grazing at the site is from grass, not water. Concentration levels in cattle were modeled, not sampled. Humans are not at risk. A resident noted that some people swim there.)
3. location of the water treatment plant (still to be determined).
4. the Consent Decree (The Decree is in DOJ's hands now and will be presented to a judge in the next few months. The public is no longer engaged, having had the public comment period extended already.)
5. the continuing existence of EPA and the Clean Water Act (Sam Coleman: all work is being done under the law, and will continue as the law requires. We cannot speculate on what Congress will do. The ROD and Consent Decree will still be lawful and require work to be done; although we cannot make predictions, it is unlikely Congress will reach back to undo it. The Consent Decree is not permanent until a judge signs it.)
6. pipeline removal prior to treatment plant completion (the pipeline will not be removed until the water is being treated with a backup plan. Chevron designs for redundancy; the water can go to tanks or holding ponds if the plant has a failure.)
7. penalty for treatment plant delays and the lake turning red again after cleanup (Chevron is under an Administrative Order right now. Penalties have not been assessed for treatment plant delays but they may be.)
8. whether the public health assessment included blood testing on humans (there was some confusion on this point; an EPA representative said no, but Rachel Conn of Amigos Bravos said yes. ATSDR did the assessment.)
9. surface water sampling (the last sampling by regulators occurred in 2012, although Amigos Bravos has been conducting sampling of its own below the bridge. Folks kept returning to this topic for the rest of the Q & A.)
10. subsidence (the Taos County Attorney wanted to discuss this; we moved on as it did not obviously relate to water, but future presentations may include this topic more prominently.)
11. the testing of elk drinking contaminated water (some confusion here).
12. The discharge to the Red River (EPA representative clarified the difference between ground water standards and surface water standards and explained the concept of 'mixing' at a discharge point.)
13. tailing ponds drying out and blowing away before being capped (Chevron is crimping in hay to prevent the tailings from becoming airborne).
14. whether Chevron is still monitoring air quality (Mr. Baumgarten hasn't seen air monitors, and they are not currently required. Residents should inform him if they see visible dust at the site.)
15. treatment technology and where the contaminants would go (Blake Atkinson spoke about state of the art technology and changing water chemistry that will precipitate metal ions, a clarifier basin, sludge in a filter press to form

very large cakes which then go to a landfill, or a hazardous waste landfill if necessary. The water collected during the process goes back to the beginning of the process. Telemetry measures the flows coming in with step-size, pore-size membranes, down to nano-filtration.)

16. the dams may rupture and the tailings should be removed (the ROD provides for cover, not removal, and the dams are regulated by the NM State Engineer. The lake is monitored, although the dam may not be).
17. water sampling upstream (not conducted under the Superfund project).
18. aluminum in surface water and trout (Rachel Conn noted that aluminum levels in surface water do not exceed the new state standard; they do exceed the old state standard, which is the standard in the ROD).
19. Compliance with NPDES permit (Chevron has to take samples and measure compliance at the end of the discharge pipe. The river is monitored under a separate program.)

The question and answer period was brought to a close at 7:30 p.m. Representatives of the three agencies present remained in the hall afterward to speak with residents individually.

Felicia Orth, Facilitator

APPENDIX F – SITE INSPECTION CHECKLIST

I. SITE INFORMATION

Site Name: Chevron Questa Mine Superfund Site	**Date of Inspection:** November 29-30, 2016
Location and Region: Taos County, NM (Region 6)	**EPA ID:** NMD002899094
Agency leading the five-year review: EPA	**Weather/temperature:** Partly cloudy, 31°F

Remedy Includes: (Check all that apply)

- ☐ Landfill cover/containment (Clay Barrier)
- ☒ Access controls
- ☐ Institutional controls
- ☐ Groundwater pump and treatment
- ☐ Surface water collection and treatment
- ☒ Other
- ☐ Monitored natural attenuation
- ☐ Groundwater containment
- ☐ Vertical barrier walls

Attachments: ☒ Inspection team roster attached ☐ Site map attached to report

II. INTERVIEWS (Check all that apply)

1. O&M site manager Cindy Gulde | Project Coordinator for Chevron | 11/29/16
Name | Title | Date
Interviewed: ☒ by e-mail ☐ at site ☐ by phone E-mail_ CGulde@chevron.com____
Problems, suggestions: ☒ Report attached Survey form attached to report

2. O&M Staff Armando Martinez | Project Manager | 11/29/16
Name | Title | Date
Interviewed: ☐ by e-mail ☐ at site ☐ by phone E-mail amarti@chevron.com
Problems, suggestions: ☐ Report attached not interviewed

3. Local regulatory authorities and response agencies (i.e.; State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.). Fill in all that apply.

Agency NMED
Contact Joseph Fox | Project Manager | 3/14/2017 | (505) 222-9560
Name | Title | Date | Phone no.
Problems, suggestions: ☒ Report attached Interview form attached to report

Agency NMED
Contact Joseph Marcoline | Project Manager | 3/14/2017 | (575) 758-7371
Name | Title | Date | Phone no.
Problems, suggestions: ☒ Report attached Interview form attached to report

Agency MMD
Contact Davena Crosley | Reclamation Biologist | 3/20/2017 | (505) 476-3425
Name | Title | Date | Phone no.
Problems, suggestions: ☒ Report attached Interview form attached to report

4. Other interviews (optional): ☐ Report attached

III. ONSITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1. O&M Documents

- ☐ O&M manual (long term monitoring plan) ☒ Readily available ☒ Up to date ☐ N/A
- ☐ As-built drawings ☐ Readily available ☐ Up to date ☒ N/A
- ☒ Maintenance logs ☐ Readily available ☒ Up to date ☐ N/A

Remarks:

2. Site-Specific Health and Safety Plan ☒ Readily available ☐ Up to date ☐ N/A
☐ Contingency plan/emergency response plan ☒ Readily available ☐ Up to date
☐ N/A
Remarks:_____

3. O&M and OSHA Training Records ☒ Readily available ☒ Up to date ☐ N/A
Remarks:_____

4. Permits and Service Agreements
☐ Air discharge permit ☐ Readily available ☐ Up to date ☒ N/A
☐ Effluent discharge ☐ Readily available ☐ Up to date ☒ N/A
☐ Waste disposal, POTW ☐ Readily available ☐ Up to date ☒ N/A
☐ Other permits _____ ☐ Readily available ☐ Up to date
☒ N/A
Remarks: Permits are not applicable for RA work completed as removal actions

5. Gas Generation Records ☐ Readily available ☐ Up to date ☒ N/A

6. Settlement Monument Records ☐ Readily available ☐ Up to date ☒ N/A

7. Groundwater Monitoring Records ☒ Readily available ☒ Up to date ☐ N/A
Remarks: There is no on-going requirement for ground water monitoring for the RA work completed as removal actions; however, there are Site-wide requirements for ground water monitoring._____

8. Leachate Extraction Records ☒ Readily available ☒ Up to date ☐ N/A

9. Discharge Compliance Records
☐ Air ☐ Readily available ☐ Up to date ☒ N/A
☐ Water (effluent) ☒ Readily available ☒ Up to date ☐ N/A
Remarks: There is no on-going requirement for discharge compliance monitoring for the RA work completed as removal actions; however, there are Site-side requirements for discharge compliance monitoring._____

10. Daily Access/Security Logs ☒ Readily available ☐ Up to date ☐ N/A
Remarks: The mine site and tailings facility area access through a guarded security gate or fenced with controlled and badged access.

IV. O&M COSTS

1. O&M Organization
☐ State in-house ☐ Contractor for State
☐ PRP in-house ☒ Contractor for PRP
☐ Federal Facility in-house ☐ Contractor for Federal Facility
☐ Other

2. O&M Cost Records
☒ Readily available ☒ Up to date ☒ Funding mechanism/agreement in place

Original O&M cost estimate from ROD ☐
Remarks: _There has only been one full year of O&M, costs are consistent with those in the ROD_____

Total annual cost by year for review period, if available

Date From	Date To	Total Cost	
From	To	- ☐	Breakdown attached
From	To	- ☐	Breakdown attached
From	To	- ☐	Breakdown attached
From	To	- ☐	Breakdown attached
From	To	- ☐	Breakdown attached

3. Unanticipated or Unusually High O&M Costs During Review Period
Describe costs and reasons:

V. ACCESS AND INSTITUTIONAL CONTROLS ☒ Applicable N/A ☐

A. Fencing

1. Fencing damaged ☐ Location shown on site map ☒ Gates secured ☐ N/A
Remarks: The mine site and tailings facility area access through a guarded security gate or fenced with controlled and badged access.

B. Other Access Restrictions

1. Signs and other security measures ☐ Location shown on site map ☒ N/A
Remarks: _____

C. Institutional Controls

1. Implementation and enforcement
Site conditions imply institutional controls not properly implemented ☐ Yes ☐ No ☒ N/A
Site conditions imply institutional controls not being fully enforced ☐ Yes ☐ No ☒ N/A
Type of monitoring (e.g., self-reporting, drive by) Enforcement of access controls
Frequency daily/weekly
Responsible party/agency CEMC or contractor for CEMC
Contact Cindy Gulde Project Coordinator for Chevron 11/29/2016 (303) 930-4116
Name Title Date Phone no.
Reporting is up-to-date ☒ Yes ☐ No ☐ N/A
Reports are verified by the lead agency ☒ Yes ☐ No ☐ N/A
Specific requirements in deed or decision documents have been met ☒ Yes ☐ No ☐ N/A
Violations have been reported ☒ Yes ☐ No ☐ N/A
Other problems or suggestions: ☐ Report attached
Remarks: Compliance with the NPDES permit is not part of the RA work completed as removal action; however, there have been NPDES permit violations which were reported.

2. Adequacy ☐ Institutional controls are adequate ☐ Institutional controls are inadequate ☒ N/A
Remarks: No institutional controls were required for this work. The mine site and tailings facility area access through a guarded security gate or fenced with controlled and badged access.

D. General

1. Vandalism/trespassing ☐ Location shown on site map ☒ No vandalism evident
Remarks: No vandalism noted during the Site inspection.

2. Land use changes onsite ☒ N/A
Remarks: No

3. Land use changes offsite ☒ N/A
Remarks: No

VI. GENERAL SITE CONDITIONS

A. Roads ☐ Applicable ☒ N/A

Roads damaged ☐ Location shown on site map ☐ Roads adequate ☒ N/A
Remarks: _____

B. Other Site Conditions ☐ Applicable ☒ N/A
Remarks: _____

VII. LANDFILL COVERS ☐ Applicable ☒ N/A

A. Landfill Surface ☐ Applicable ☐ N/A

1. Settlement (Low spots) ☐ Location shown on site map ☐ Settlement not evident
Areal extent _____ Depth _____
Remarks: _____

2. Cracks ☐ Location shown on site map ☐ Cracking not evident
Lengths _____ Widths _____ Depths _____
Remarks: _____

3. Erosion ☐ Location shown on site map ☐ Erosion not evident

Areal extent _____ Depth _____
Remarks: _____

4. Holes ☐ Holes evident ☐ Holes not evident
Areal extent _____ Depth _____
Remarks: _____

5. Vegetative Cover ☐ Grass ☐ Cover properly established ☐ No signs of stress
☐ Trees/Shrubs (indicate size and locations on a diagram)
Remarks: _____

6. Alternative Cover (armored rock, concrete, etc.) ☐ N/A
Remarks: _____

7. Bulges ☐ Location shown on site map ☐ Bulges not evident
Areal extent _____ Depth _____
Remarks: _____

8. Wet Areas/Water Damage ☐ Wet areas/water damage not evident
☐ Wet areas ☐ Location shown on site map ☐ Areal extent ___
☐ Ponding ☐ Location shown on site map ☐ Areal extent ___
☐ Seeps ☐ Location shown on site map ☐ Areal extent ___
☐ Soft subgrade ☐ Location shown on site map ☐ Areal extent ___
Remarks: _____

9. Slope Instability ☐ Slides ☐ Location shown on site map
☐ No evidence of slope instability Areal extent _____
Remarks: _____

B. Benches ☐ Applicable ☐ N/A

1. Flows Bypass Bench ☐ Location shown on site map ☐ N/A or okay
Remarks: _____

2. Bench Breached ☐ Location shown on site map ☐ N/A or okay
Remarks: _____

3. Bench Overtopped ☐ Location shown on site map ☐ N/A or okay
Remarks: _____

C. Letdown Channels ☐ Applicable ☐ N/A

1. Settlement ☐ Location shown on site map ☐ No evidence of settlement
Areal extent _____ Depth _____
Remarks: _____

2. Material Degradation ☐ Location shown on site map ☐ No evidence of degradation
Material type _____ Areal extent _____
Remarks: _____

3. Erosion ☐ Location shown on site map ☐ No evidence of erosion
Areal extent _____ Depth _____
Remarks: _____

4. Undercutting ☐ Location shown on site map ☐ No evidence of undercutting
Areal extent _____ Depth _____
Remarks: _____

5. Obstructions Type _____
☐ No obstructions ☐ Location shown on site map
Areal extent _____ Size _____
Remarks: _____

6. Excessive Vegetative Growth Type _____

☐ No evidence of excessive growth ☐ Vegetation in channels does not obstruct flow
☐ Location shown on site map Areal extent _____
Remarks: _____

D. Cover Penetrations ☐ Applicable ☐ N/A

1. Gas Vents ☐ Active ☐ Passive
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☐ N/A
Remarks: _____

2. Gas Monitoring Probes
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☐ N/A
Remarks: _____

1. Monitoring Wells (within surface area of landfill)
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☐ N/A
Remarks: _____

4. Leachate Extraction Wells
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☐ N/A
Remarks: _____

5. Settlement Monuments ☐ Located ☐ Routinely surveyed ☐ N/A
Remarks: _____

E. Gas Collection and Treatment ☐ Applicable ☐ N/A

1. Gas Treatment Facilities
☐ Flaring ☐ Thermal destruction ☐ Collection for reuse
☐ Good condition ☐ Needs Maintenance
Remarks: _____

2. Gas Collection Wells, Manifolds, and Piping ☐ Good condition ☐ Needs Maintenance
Remarks: _____

3. Gas Monitoring Facilities (e.g., gas monitoring of adjacent homes or buildings)
☐ Good condition ☐ Needs Maintenance ☐ N/A
Remarks: _____

F. Cover Drainage Layer ☐ Applicable ☐ N/A

1. Outlet Pipes Inspected ☐ Functioning ☐ N/A
Remarks: _____

2. Outlet Rock Inspected ☐ Functioning ☐ N/A
Remarks: _____

G. Detention/Sedimentation Ponds ☐ Applicable ☐ N/A

1. Siltation Areal extent _____ Depth _____
☐ N/A ☐ Siltation not evident
Remarks: _____

2. Erosion Areal extent _____ Depth _____
☐ Erosion not evident
Remarks: _____

3. Outlet Works ☐ Functioning ☐ N/A
Remarks: _____

4. Dam ☐ Functioning ☐ N/A
Remarks: _____

H. Retaining Walls ☐ Applicable ☐ N/A

1. Deformations ☐ Location shown on site map ☐ Deformation not evident
Horizontal displacement _____ Vertical displacement _____
Rotational displacement _____
Remarks: _____

2. Degradation ☐ Location shown on site map ☐ Degradation not evident
Remarks: _____

I. Perimeter Ditches/Off-Site Discharge ☐ Applicable ☐ N/A

1. Siltation ☐ Location shown on site map ☐ Siltation not evident
Areal extent _____ Depth _____
Remarks: _____

2. Vegetative Growth ☐ Location shown on site map ☐ N/A
☐ Vegetation does not impede flow
Areal extent _____ Type _____
Remarks: ____

3. Erosion ☐ Location shown on site map ☐ Erosion not evident
Areal extent _____ Depth _____
Remarks: _____

4. Discharge Structure ☐ Functioning ☐ N/A
Remarks: _____

VIII. VERTICAL BARRIER WALLS ☐ Applicable ☒ N/A

1. Settlement ☐ Location shown on site map ☐ Settlement not evident
Areal extent _____ Depth _____
Remarks: _____

2. Performance Monitoring Type of monitoring _____
☐ Performance not monitored Frequency _____ ☐ Evidence of breaching
Head differential _____
Remarks: _____

IX. GROUNDWATER/SURFACE WATER REMEDIES ☐ Applicable ☒ N/A

A. Groundwater Extraction Wells, Pumps, and Pipelines ☐ Applicable ☐ N/A

1. Pumps, Wellhead Plumbing, and Electrical
☐ Good condition ☐ All required wells located ☐ Needs Maintenance ☐ N/A
Remarks: _____

2. Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances
☐ Good condition ☐ Needs Maintenance
Remarks: _____

3. Spare Parts and Equipment
☐ Readily available ☐ Good condition ☐ Requires upgrade ☐ Needs to be provided
Remarks: _____

B. Surface Water Collection Structures, Pumps, and Pipelines ☐ Applicable ☐ N/A

1. Collection Structures, Pumps, and Electrical
☐ Good condition ☐ Needs Maintenance
Remarks: _____

C. Treatment System ☐ Applicable ☐ N/A

1. Treatment Train (Check components that apply)
☐ Metals removal ☐ Oil/water separation ☐ Bioremediation
☐ Air stripping ☐ Carbon absorbers
☐ Filters _____
☐ Additive (e.g., chelation agent, flocculent) pH management

☐ Others _____
☐ Good condition ☐ Needs Maintenance
☐ Sampling ports properly marked and functional
☐ Sampling/maintenance log displayed and up to date
☐ Equipment properly identified
☐ Quantity of groundwater treated annually _____
☐ Quantity of surface water treated annually _____
Remarks:_____

2. Electrical Enclosures and Panels (Properly rated and functional)
☐ N/A ☐ Good condition ☐ Needs Maintenance
Remarks: _____

3. Tanks, Vaults, Storage Vessels
☐ N/A ☐ Good condition ☐ Proper secondary containment ☐ Needs Maintenance
Remarks: _____

4. Discharge Structure and Appurtenances
☐ N/A ☐ Good condition ☐ Needs Maintenance
Remarks: _____

5. Treatment Building(s)
☐ N/A ☐ Good condition (esp. roof and doorways) ☐ Needs repair
☐ Chemicals and equipment properly stored
Remarks: _____

6. Monitoring Wells (pump and treatment remedy)
x All required wells located ☐ Needs Maintenance ☐ N/A
Remarks: _____

D. Monitored Data ☐ Applicable ☐ N/A

1. Monitoring Data
☐ Is routinely submitted on time? ☐ Is of acceptable quality?

2. Monitoring data suggests:
☐ Groundwater plume is effectively contained? ☐ Contaminant concentrations are declining?

E. Monitored Natural Attenuation

1. Monitoring Wells (natural attenuation remedy)
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ All required wells located ☐ Needs Maintenance ☐ N/A

X. OTHER REMEDIES

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.
The mine site is very large and the remedy required by the EPA's ROD finalized on December 20, 2010, will take years for completion. Work on completion of the remedy must continue for the Site to be protective of human health and the environment.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).
The current implementation of the remedy is effective and is functioning as designed.

B. Adequacy of O&M
Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. O&M is adequate.
C. Early Indicators of Potential Remedy Problems
Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future. There are no early indicators of potential remedy problems or failure.
D. Opportunities for Optimization
Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.

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APPENDIX G – SITE INSPECTION PHOTOGRAPHS

Eastern Diversion Channel – Inlet 1 11/2/16

Eastern Diversion Channel – Inlet 1 11/29/16

Eastern Diversion Channel – Inlet 2 11/2/16

Eastern Diversion Channel – Inlet 2 11/29/16

Eastern Diversion Channel – Inlet 3 11/2/16

Eastern Diversion Channel – Inlet 3 11/29/16

Eastern Diversion Channel – Manhole 1 11/2/16

Eastern Diversion Channel – Drop Structure Reach 5 11/29/16

Eastern Diversion Channel – Reach 5 outlet 11/2/16

Lower Dump Sump area tailing removal 11/2/16

SH 38 – Walking tailing spill removal area 11/29/16

Area excavated to remove tailings 11/29/16

Tailing pipeline with tailing spills 11/2/16 	Tailing pipeline trestle across Red River 11/29/16 
Eagle Rock Lake 11/2/16 	Eagle Rock Lake 11/29/16 
Eagle Rock Lake 11/2/16 	Eagle Rock Lake – south fishing pier 11/2/16 

Eagle Rock Lake – head gate 11/2/16

Eagle Rock Lake head gate 11/29/16

Mill area – Reagent Building 11/30/16

Goathill Gulch parshall flume 11/30/16

Lower Capulin Canyon parshall flume 11/30/16

APPENDIX H – ADDITIONAL SITE WORK

On August 9, 2016, the Department of Justice (DOJ) lodged a proposed First Partial Remedial Design/Remedial Action (RD/ RA) Consent Decree (Consent Decree) with the United States District Court for the District of New Mexico. The DOJ received a request for an extension of the initial public comment period and extended the comment period for an additional 30 days, or until October 14, 2016. The court entered the Consent Decree on May 1, 2017.

The work in the Consent Decree include:s

- Tailing Facility Cover Demonstration Pilot Project;
- Surface-based Mine Dewatering System;
- Mine Site Groundwater Extraction System; Mine Site Area Water Treatment Plant;
- Excavation of Soil at Dry/Maintenance Area;
- Seepage Barrier Upgrade; and
- Tailing Facility Groundwater Extraction System.

On September 25, 2012, an Administrative Order on Consent (AOC) was signed which set forth early design actions that CMI will conduct at the Site. The early design work involves additional ground water investigations, a waste rock pile reclamation pilot project, and treatability studies for water treatment. Three amendments to the original AOC added additional work to be conducted including design of ground water extraction systems; design and construction of a pilot surface-based mine dewatering system; preparation of a Tailing Facility grading plan, and vegetation and animal studies.

- Also as required under the AOC, CMI set up a multi-stakeholder facilitated technical work group (TWG) to develop and evaluate remedial design options for the waste rock piles. The TWG provided technical expertise to assist CMI in the development and evaluation of design options for the waste rock piles.

CMI's National Pollutant Discharge Elimination System (NPDES) permit requires CMI to cease conveying waste streams to the tailings facility by October 1, 2016. The permit also requires CMI to comply with effluent limitations for treated water discharged at the Mine Site area by October 1. CMI has indicated in meetings with the EPA that they will not be able to meet the NPDES permit requirements by October 1, 2016 because the Mine Site water treatment plant currently being constructed will not be operational by that date. CMI is currently evaluating alternatives to meet its permit requirements.

The mine closure on June 2, 2014, triggered regulatory obligations for CMI under State law, it is critical to effectively integrate CMI's regulatory obligations under both CERCLA and New Mexico laws.

COMMUNITY CONCERNS:
The mine closure has created economic concern in the Village of Questa and in Taos County. EPA is working with CMI to ensure cleanup work continues so that displaced former mine employees have opportunities to work with CMI on remediation and reclamation.